SOME ASPECTS OF THE LEARNING OF ENGLISH IN ENGLISH-MEDIUM AND NON-ENGLISH MEDIUM SCHOOLS IN INDIA.

by

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ABSTRACT

A study of the acquisition of Tense and Aspect, Negation and Interrogation in English by learners in two learning situations aims to determine whether:

(1) the linguistic behaviour of different learners is systematic and rule governed
(2) the processes of language acquisition are similar in the English-medium and non-English medium contexts
(3) similar strategies are used by the two groups of learners
(4) sequences of development can be found for each of the areas studied
(5) the IL continuum is a recreative and developing system
(6) the variability of the IL system can be defined both at the diachronic (development over time) and synchronic levels (measured by the performance of learners in different tasks)

A cross-sectional approach is used for the four areas investigated. The following tasks are used: oral production, discrete-point, multiple-choic for Tense and Aspect; translation, transformation of sentences, error correction and grammaticality judgement for Negation and Interrogation. The ninety subjects in the study are from three English, Hindi and Khasi medium schools, drawn from classes four, seven and ten.

Analysis of the data reveals basic underlying processes in the acquisition of syntax and Implicational Scales display the systematic nature of acquisition by learners. However, the use of certain pragmatic strategies by some Hindi and Khasi learners give the sentences a unique appearance.

The results also indicate that the IL is one that increases in complexity over time. Based on the findings, it is suggested that learners first acquire linguistic elements or categories with high information value. Sequential acquisition of new linguistic material is also suggested to be linked with neurological constraints on memory and mental capacity.

Variable performances by learners in different tasks suggest that the IL system is unstable, dynamic and changeable. However, both diachronic and synchronic variability can be accounted for.

Some implications for formal language learning are suggested at the close of the thesis.

DECLARATION

I declare that this thesis has been composed by myself and that the work involved is entirely my own

Juanita War

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CHAPTER 1

Introduction

1.0. Many interesting issues have been brought to light by research in second language acquisition (henceforth SLA) which further stimulate enquiries into different aspects of an ever-expanding area of investigation. Such issues as the general cognitive processes of learning, in particular the linguo-cognitive processes of language learning, the universality of such processes as reflected in invariant orders of acquisition and sequences of development, strategies of learning and communication are interesting not only to researchers and theorists of second language (henceforth L2), but also to developmental psychologists and educators. Questions raised are: Are there universal mechanisms responsible for language learning? If so, is L2 acquisition similar to L1? What are the differentiating factors?

Issues relating to the nature of a learner's language, defined by its paradoxical systematicity in variability and its dynamic, developing character, is a teasing enigma to researchers interested in capturing and describing more details about these transitional and provisional systems and the factors which shape them. Some of these influential factors on the learner's system have been isolated - cognitive development, psycho-affective factors like attitude and motivation, previous known language(s), the nature of the target language (henceforth TL), the learner's strategies to learn and to communicate and different learning situations. The last mentioned has not been dealt much except in the work of Felix (1980b), Wode (1981) and some other investigators. It is therefore particularly interesting for us to compare SLA in different learning environments, specifically in English Medium (EM) and Non-English Medium (NEM) schools in North-East India.

Such a comparative study enables us to investigate whether there are universal processes of language acquisition which override the differences in situations, syllabuses, methods of teaching, and first languages. We will examine the strategies of learning and communication adopted by learners in different

environments, whether they are similar or different. If similar developmental sequences comparable to other longitudinal and cross-sectional studies are found, the next important step is to look for explanations regarding the sequences of development within a rational and pragmatic framework related to what we know about language and communication. In doing so, we will be taking our investigation further afield into the theoretical Why to supplement the empirical What.

We will not attempt to describe the learners' idiosyncratic dialects in great detail since these are not static systems readily amenable to linguistic descriptions; also they are subjected to such individual variations that detailed descriptions are near impossible. Some broad characterisations however will be attempted: empirical evidences will be given to show that the learner's language is a developmental continuum that develops over time and is related to the amount of exposure to the data. Secondly, it will be shown that it is variable, but that variability is patterned and systematic. Thus a learner's language is defined by the complexification of a basic system over time (developmental and diachronic), and by synchronic variability due to linguistic environments and the nature of the tasks which impose different cognitive and linguistic demands on the learner. Task differences will lead us to some speculations about situations that promote implicit and/or explicit linguistic knowledge, the control of and accessibility to such knowledge in different linguistic situations and in different types of linguistic uses.

The empirical and theoretical questions given briefly above, plus the availability in linguistic investigations of new research tools to statistically analyse, confirm and display data, are some of the motivations for this study. It would be incomplete, however, not to mention a very practical and pedagogically urgent question which is related to the specific learning of English in the schools and colleges in North-East India: If there are vast differences in the proficiency of English between EM and NEM learners, how would this affect their education, especially at the college and university levels where students are grouped together in all classes and compete in the same examinations through the

medium of English? Can pedagogical directions be sought to bridge the gap between the different streams of students? What kind of bilingual education should be given to the majority of the students?

1.1. Background of the study and the position of English in North-East India

North-East India is a multilingual region with many language groups - Assamese, Bengali, Hindi and other languages belonging to the Indo-Aryan family, tribal languages which belong to the Sino-Tibetan group, and a tribal language (Khasi) of the Austro-Asiatic family. One cannot say offhand that there is a single dominant language in the North-East region as a whole, since the dominance by any one language is conditioned by (a) geographical area, (b) the location of a group or different linguistic groups within that area, (c) the size of the linguistic group(s), (d) the roles of the different languages in the social, political, educational and economic fields. In big towns and cities, different languages are used in different domains, since interactions between different groups is quite extensive.

In such a complex, heterogeneous area, English has many uses, such as:

(i) as a language of instruction in higher education (universities, colleges, medical and technical institutes);

(ii) as a medium of instruction in composite schools having students from various linguistic groups. In these English Medium (henceforth EM) schools, all subjects are taught in English. There is also ample exposure to a rich informal environment;

(iii) as a language 'subject' in Non-English Medium (henceforth NEM) schools from Class I to VI, after which it becomes the medium of instruction for four years till the School Leaving Certificate after Class X. Since most students in an NEM institution share a common L1, there is hardly any real communicative use of English among the students or between students and teachers except in the classroom. On the whole, students are only at the receptive and passive end of the teaching process, with little chance for actual language use;

(iv) as an official language in four tribal states, therefore it is used for official correspondence, in official mixed-group functions, and so forth;

(v) as a language of communication for the educated population in inter-linguistic interaction.

1.2. Definition of terms

(i) Second language acquisition (SLA) : "the process of learning another language after the basics of the first have been acquired, starting about five years of age and thereafter" (Dulay, Burt and Krashen 1981:10).

SLA can be in a foreign language context (e.g. English in India) as well as in a host language context (English in UK). For the purpose of this study, the former is applicable. This however does not mean that English is a foreign language in the sense that French, German or Russian is. Rather, English has to be taken as L2 for the following reasons: (a) its uses in the North-Eastern states mentioned above, (b) the fact that our subjects have been taken from urban and not rural schools, where exposure to English will be minimal;

(ii) Transitional competence, Idiosyncratic dialect, Interlanguage, Approximative Systems - these are some of the terms used to describe the learner's language. Corder defines it as a "transitional competence" or the learner's "underlying knowledge of the language to date" (Corder 1967:10) In another article (Corder 1973), he views the learner's language as one of four idiosyncratic dialects. It is idiosyncratic because it is uniquely representative of the learner's own rule system, and there are no native speakers of such dialects.

Selinker's (1972) conception of the learner's language is as an Interlanguage, implying that it is defined by rules of two or more languages, the L1 and the L2. Nemser (1971) on the other hand views it as a series of more complex systems approximating towards the TL.

In this study, we will follow the more generally accepted term proposed by Selinker, i.e. the learner's language will be called Interlanguage (henceforth IL). This does not mean however that we view IL in the same light as Selinker, as will be evident in Chapter 2.

(iii) Input : Intake. Corder (1967:9) distinguishes between the two terms - Input refers to "what is available for going in". In the context of the classroom, input is almost synonymous with the syllabus and the linguistic forms presented in the class by the teacher.

This contrasts sharply with Intake - "What goes in" - which is controlled by the learner's own language acquisition mechanisms and is related to his needs. When confronted with data in the TL, the learner seeks meaning "through analysis of what is most salient in the data, i.e. lexical items and sequences" (Corder 1977:85) then he interprets the structure of the TL on the basis of his initial hypotheses. Corder is of the opinion that this process is similar to the Piagetian 'assimilation' and is essentially deductive. By implication, intake is more important in shaping the learner's language than the input; input may be available, but unless the learner's own language acquisition mechanisms act on it, or if it is too far beyond the linguistic maturity of the learner, it will not form part of the intake (Corder 1971).

Krashen (1981:101) defines intake as "that subset of linguistic input that helps the acquirer acquire language" and further characterised intake as 'natural', i.e. language used for communication, and the fact that it can be understood. In Krashen's view, comprehensible input (henceforth CI) provides for maximal intake or acquisition. CI is defined as i + 1, or the level one stage beyond the learner's own knowledge.

(iv) Implicit : Explicit Linguistic Knowledge. Following Bialystok (1978) implicit knowledge is defined as "the intuitive information upon which the language learner operates in order to produce responses (comprehension or production) in the target language. Whatever information is automatic and is used spontaneously in language tasks is represented in implicit linguistic knowledge". Explicit linguistic knowledge on the other hand "contains all the conscious facts the learner has about the language" (Bialystok, op.cit.:72).

In subsequent papers (Bialystok 1981) some of the original definitions were modified, i.e. explicit knowledge is no longer articulated knowledge, but

'analysed information' no longer bound to a particular situation, but is a "systematic, organised information in its own right".

Unlike Krashen's (1981) definitions of acquisition and learning which he maintains are related to the unconscious and conscious rule internalisation, Bialystok avoids the terms 'conscious' and 'unconscious'. She makes it clear that the distinction does not depend on the content nor on the methods of instruction. Rather, the distinction depends on the ability of the learner to use linguistic knowledge or the way it is used (Bialystok 1979).

(v) Strategies of Learning and Strategies of Communication. Tarone et al (1976) define a learning strategy as "a process of rule formation; a tentative hypothesis which a learner forms about the nature of the L2, which is tested and subsequently modified". In Corder's view (1978) a learning strategy is a regular characteristic of a learner's IL at the time of study; it is also the result of his IL system.

Learning Strategies are classified in the literature as transfer, i.e. the use of L1 rules in L2; overgeneralization or the extension of L2 rules to inapplicable contexts; memorization which means the commitment to memory of chunks of several words as unanalysed units; paying attention to word order, which, according to Richards (1971) is a crucial strategy in the acquisition of L1 and L2.

A communication stragegy according to Corder (1978) is "a systematic technique employed by the speaker to express his meaning when faced with some difficulty" which is his inadequate command of the L2. The inherent imbalance between meaning and message intended, and a limited linguistic resources, makes the L2 speaker adopt any of the two communicative strategies: message adjustment strategies such as message reduction, topic avoidance, semantic avoidance, and message abandonment. These strategies are risk-avoiding and are less desirable than risk-taking resource expansion strategies. An important category in these types of strategies is 'borrowing' or the use of items or features of the L1 and other known languages. Other risk-taking communication strategies are paraphrases, circumlocution, word-coinage and other ad hoc means.

It is important to note here that though the literature differentiates between learning and communication strategies, there is some overlap as these also interact with each other. Thus, initial 'borrowing' from the L1 if successful (especially when languages are structurally and/or lexically similar) will become a productive learning strategy. Such transfers may also result in unsuccessful 'interference' when a particular item happens to be dissimilar. Such interaction between learning and communication strategies usually create problems for a researcher.

(vi) Order of acquisition : Sequence of development. The order of acquisition refers to "the order in which items or groups of items of grammar, discourse, or phonology are acquired" (Dulay et al 1982:275). The order can be in terms of rank order or hierarchies and is discovered directly either by longitudinal studies or indirectly by cross-sectional studies. Felix (1984:40) observes that the 'order of acquisition' refers mainly to the order in which different structures are fully mastered, while 'developmental sequence' refers to the sequence of developmental stages through which learners pass in the learning process before they master a given structure completely. The two are therefore different concepts.

(vii) Prefabricated patterns and routines. Hakuta (1974) and Krashen (1981) are among some of the writers who have noted the existence of prefabricated patterns in IL. These are "partly 'creative' and partly memorized wholes; they consist of sentence frames with an open 'slot'" (Krashen 1981:83). Routines on the other hand are "memorized whole utterances or phrases" which may be used without any knowledge of their internal structure.

1.3. Structure of the thesis

This study is divided into eight chapters of unequal length. In the first introductory chapter we have given a brief general overview of some issues in SLA research. Terminology and definitions have been given to help clarify some of the terms that we will come across in this study.

Chapter 2 presents an evaluative discussion of the theories and models related to SLA and major published work in L2 research.

In the review of the literature and theoretical discussion more importance will be given to those theories and work which are of relevance to the present investigation.

In Chapter 3 we will discuss the specific structures chosen for our investigation - tense and aspect in English, the syntax of negation, and the syntax of interrogation, both Yes/No (Y/N) and information (WH) questions. We will discuss, briefly, these structures in the L1's of our subjects as compared to their forms and uses in English. It is also necessary to present the rationale for the choice of these structures for investigation. Specific theoretical issues in which we are interested, will be presented as aims and hypotheses of this study.

In the next chapter we will discuss the methods of elicitation used, the pilot tests, the sample subjects, and the experiments carried out in the course of the investigation.

Analysis of the data is presented in two chapters: Chapter 5 deals with the analysis of tense and aspect, and concludes with an interim report of the main findings from the statistical analyses. In Chapter 6, the same procedures and methods of statistical analyses will be followed for the two areas of negation and interrogation, with the main findings as a conclusion.

In Chapter 7 the results from both the previous chapters are taken for interpretation and discussion. The focus of attention will be on issues relating to sequences of development of the structures chosen; explanations are offered for these sequences based on the data and discussions in previous studies. Strategies used by the EM and NEM subjects will be discussed, as also the position of the subjects on the developmental continuum, variability due to tasks, and lastly, the form: function distinction from the data of EM and NEM subjects.

The last concluding chapter presents a brief summary of our results and discussions related to the questions posed in Chapter 1. Lastly, pedagogical implications and applied uses are suggested.

CHAPTER 2

Theoretical Discussions and Review of the Literature

2.1. L1 Research : the seeds of L2 studies

Much of the research in L2 acquisition studies has its roots in L1 research of the sixties. As an introduction it is necessary therefore to give a brief resume of L1 research and the theories that have provided the framework within which linguists and researchers can explore processes of language acquisition. The three main theories prevalent were: the Behavouristic theory (Skinner 1957), the Nativist theory (Lenneberg 1967, Chomsky 1959, 1965, McNeill 1966, 1968), and a Semantic School (Bloom 1970). The Behaviouristic theory with the attendant principles of exercise and practice, stimulus and response, conditioning etc. was seen as a mechanical process of external environment acting upon an uncreative learner. Nativist theorists argued cogently that the child is not an empty receptacle, but that he brings an active participation and an innate knowledge to the process of acquisition. The child's ability to 'create' language comes from his possession of the language acquisition device (henceforth LAD). McNeill (1966) posits that one property of the LAD is the ability to engage in constant evaluation of the developing linguistic system and to construct the simplest possible system out of the linguistic data. Chomsky is of the opinion that "universals are intrinsic properties of the language acquisition system, these providing a Schema that is applied to data" (Chomsky 1965:53). The child-learner is all the time engaged in analysing the input data, forming hypotheses about the linguistic structures and systems, revising and modifying them against new data. The process is a gradual and progressive movement towards the complex adult grammar. The process is natural, unconscious and systematic. An important contribution of this school is the notion of language as a rule-governed system; each language is shown to be a 'system of systems', i.e. a structured organisation of the rules of syntax, of morphology, of semantics, phonology, and morphophonemics; further, these systems are ordered within themselves. This finite system of rules which form the

intuitive grammar of a native speaker generates an infinite number of sentences in production, comprehension, detection of ambiguity, synonymy and so forth.

The Nativists' preoccupation with rules and structures was however considered inadequate in fully account for the complexities of language learning, since meaning was not taken into account. By the beginning of the 1970s, such approaches were considered 'lean' and it was felt by some researchers that 'rich' interpretations must place semantics at the centre of the language acquisition process. Lois Bloom's 1970 study is one of the pioneering works which attempted to break away from the restrictions placed by the previous schools. In her work, Bloom showed that children not only learn the syntax of sentences, but also underlying structures and relationships with due attention to meaning, function and context. Semantic intentions are reflected in the word order chosen by the child. Brown (1973:63) concludes that "a semantic characterisation or what I have called 'rich interpretation' is the superior approach". Brown cites the work of Schlesinger (1974) and Fillmore (1968) as belonging to the "semantically aware kinds of grammar" (Brown 1974:65). Psychologists like Slobin (1971) have postulated that the cognitive development of a child precedes his semantic learning and knowledge of semantic relationships such as possession, nomination, location, agent-action-object etc., which are then reflected in linguistic expressions. The study of semantic relationships in child speech "has helped expose remarkable developmental universals that formerly had gone unremarked" (Brown 1973:100).

2.2. Theories and Models in L2 Research

2.2.1. The Interlanguage Hypothesis

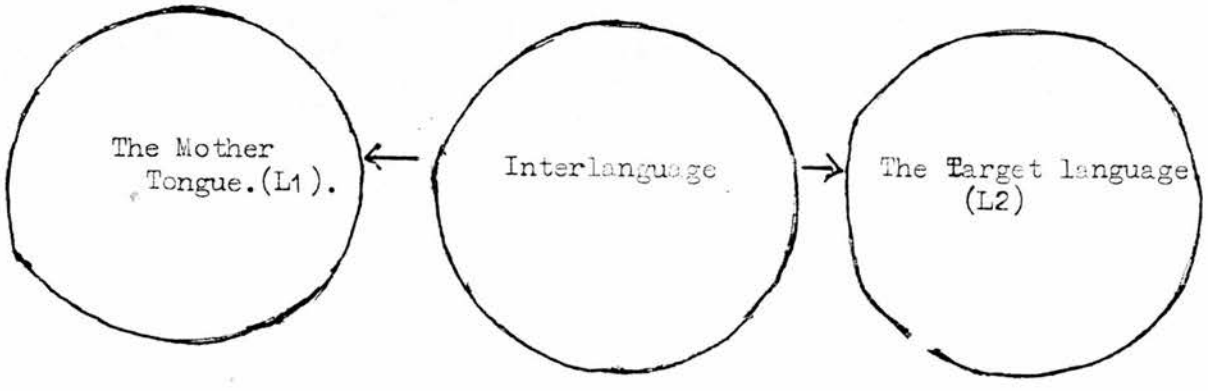
Corder (1967) proposed the innate hypothesis for language acquisition to L2, postulating the same mechanisms, procedures and strategies for the acquisition of L2 as those used to acquire L1. The learning process of L2 also involves the activation of the internal language learning mechanisms to construct the grammar of the TL from the data to which the learner is exposed. The transitional competences of the learner at different stages are

characterised by regularity and systematicity, thus they are describable by sets of rules, some of which may be variable. The systematic nature of these competences is seen in the regularity of the learner's developmental 'errors'. Errors are therefore given a new status: they are invaluable evidences of the learning process going on as the learner tests and revises hypotheses about the TL as he moves along the dynamic, ever changing and variable IL continuum (Corder 1967). Other scholars like Selinker (1969, 1972), Nemser (1971), Bickerton (1971) also recognise the autonomous, dynamic, fluctuating but systematic nature of the language of the learners. However, their points of emphasis and details of the concept of the learner's system differ. For lack of space in the following comparative discussion we will be concerned only with the ideas of Selinker and Corder.

2.2.1.1. Restructuring vs Recreative Hypothesis

Selinker's concept of the IL as one of equal complexity arises out of his belief that second language learning is the reorganization of the linguistic material from an IL to identify with a particular TL (Selinker 1972:127). The IL on the other hand is the product of the restructuring of the L1 so that it acts as a middle system. This point of view can be schematically shown as the following:

FIGURE 1 Selinker's Model of Interlanguage in Relation to the L1 and the Target Language



The problem with this concept is that it attributes far more to the L1 than is the actual case, because it leans heavily on the presence of transfer errors and the adoption of the sociolinguistic concept of languages in contact (Weinreich 1953).

The alternative hypothesis proposed by Corder (1977b) that learning a second language is more a 'recreative' than 'restructuring' process is more acceptable since language learning is now generally accepted to be a cognitive-based process and not a transfer of habits. This view sees the learner as actively engaged in the learning process, starting with communicational needs in understanding and producing meaningful utterances (Corder 1977:91). Empirical support for this view can be seen in the natural order and sequences of development studies. Secondly, transfer errors account for very little of the total errors that learners made; Dulay, Burt and Krashen (1982:5) attribute only 5% of the total errors to transfer from the L1 in children, and about 20% in adults. Though other researchers have reported different figures, it is nonetheless generally believed that the bulk of a learner's errors are developmental as in the case of L1 acquirers.

2.2.1.2. The L1 vs a Universal Linguistic Code as the Basis of an IL

Because Selinker sees IL as an intermediate stage between the L1 and the TL, it is implicit that he also sees the L1 as the starting point of the formation of the IL via a reorganisation of L1 linguistic rules and other linguistic materials. Corder (1977a) has argued that it is more likely that learners of an L2, L3 and so forth, should possess a basic semantax (Traugott 1977) which is probably a universal feature. This has been argued for in the study of the origin of pidgins (Hymes 1971) the beginning of an L1 (Brown 1973, Lyons 1973), and is consistent with the more general ideas of innate hypothesis and the hypothesis of linguistic universals. It is also consistent with the findings that (a) simple codes are essentially the same, one characteristic being structural and morphological poverty (b) the ability of every speaker to regress to a simple code such as Baby Talk, Foreigner

Talk, and so forth. Lastly, a strong argument in favour of the universal semantax hypothesis as the basis of second language learning is the role given to semantics, meaning and communication. Corder's identification of the early stages of the IL with simple codes, which are 'nearer' to the "underlying structure of the 'inner form' of all languages, i.e. more overtly reflect semantic categories and relations" (Corder, op.cit.:82) implies his belief in the role of semantics as the basis of language development. Corder believes that language learning is essentially a discovery procedure, the learner of L2, like the child learning his mother tongue, uses as his initial hypothesis, not the complex system of his L1, but a basic system which is available for all language learning. Thus, when faced with the data of the TL, whether L1, L2 ... Ln, the learner learning a language in a natural context seeks meaning through analysis of what is perceptually most salient in the data of the TL, i.e. lexical items and word order (Hymes 1971). It is to be noted that lexical items and word order are basic to communication of meaning or message, and therefore have optimum utility. The basic linguistic code at the initial stage of language learning develops into a series of more complex and approximative systems (Nemser 1971) till it equals the L2 system if fossilization does not take place.

2.2.1.3.Non-developmental vs Developmental Continuum

It is logical to hypothesise a developmental continuum since learning theories and developmental psychology have shown that there are stages of development as learning progresses over time. In this connection, Corder (1977a) argues for the postulation of "some rather general processes of 'complication', i.e. language learning". These 'complication rules' are language specific, possibly the addition of function words, morphology, inversion, deletion or such other transformational rules, if the TL requires these. Since the motivation for complication arises out of increased communicative needs and the necessity to reduce ambiguity, the complication process also involves the replacement of general rules by more specific ones, undifferentiated by more differentiated

categories. Thus the developmental continuum is one of increasing complexity as the learner complexifies and expands his basic system. This process is attested in the phenomenon of linguistic system changes such as Pidgin to Creole, child language to adult language, learner's IL to the TL. In all these cases the changes are towards a norm or target; hence development also involves a goal-oriented change. The concept of IL as a developmental one is supported by empirical research such as Hyltenstam (1978a).

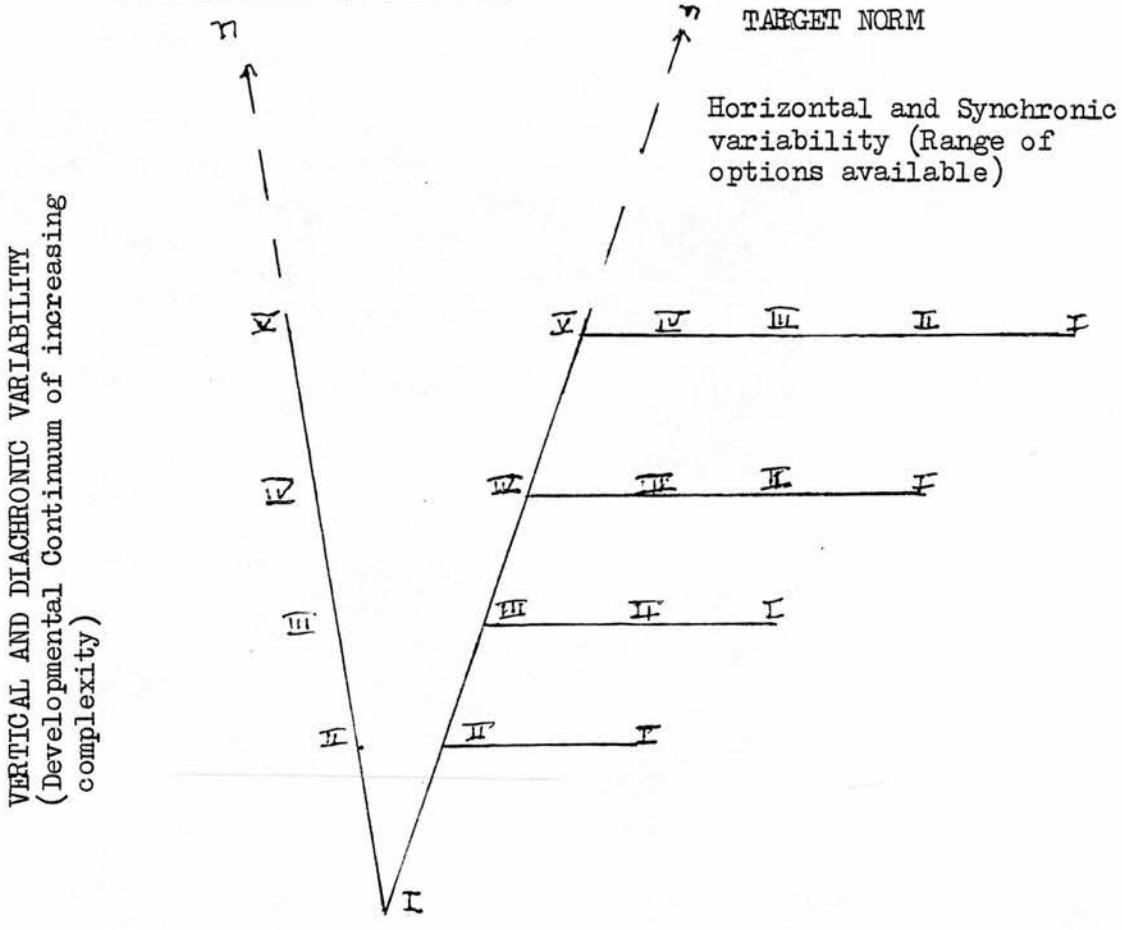
2.2.1.4.Variability

Variability in Corder's theory is partly explained by the concept of the IL as a developmental one increasing in complexity over time, as learning progresses. Linguistic rules or items which are being learned are naturally in a constant state of flux, and this results in variable performances. On the other hand, there is a horizontal variability which is at a single point in time. Corder believes that the IL speaker, like the native speaker, has more than one code available to him (Corder 1977b:91). Variable performances by a learner at any particular time is therefore possible because he has a range of options and can shift along the IL continuum. The reasons are (a) the co-existence of multiple hypotheses that the learner makes use of in his search for the target system (Corder 1976:75), (b) the presence of more than one model of the L2, (c) the type of mode operating - spoken or written or whether the linguistic task is comprehension/ recognition or more demanding ones like production (Corder 1977b:92, Bickerton 1975).

2.2.1.5.Evaluation of Corder's Concept of the IL

From our discussion above, we are now in a position to schematically represent Corder's concept of the IL shown below:

FIGURE 2 A Representation of Corder's Model of the Interlanguage Continuum



The vertical line in the above diagram represents the IL developmental continuum from the starting point 'I' to the end point 'n' which is the target norm or the end of learning if fossilization sets in. Since 'I' is the starting point it represents an initial elementary stage. The learner moves upwards along the continuum as he elaborates his L2 linguistic system through learning and exposure to more data over a time span, which cannot be specified since the rate of learning differs according to individual learners and the opportunity for learning. II, III, IV and so forth represent the stages higher up as the IL becomes more complex and approximates the TL(n). The horizontal line represents the range of options available to the learner (2.2.1.4 above). Notice that the learner at the earlier stages has a very limited range in production, i.e. he can move only to a stage of equal or lesser complexity, e.g. if the learner is at

Stage V, he can move between the range I to V, but if he is at Stage II, only two options are available for him.

The above figure is a rather simplified representation of the IL developmental continuum, since it does not specify that the linguistic rules or categories between one stage and another may overlap. In other words, sometimes we may find that we cannot place a learner definitely at one stage or another since these are not so clear-cut. Thus the IL has been envisaged by Corder and Selinker as a continuum rather than a series of discrete stages of approximative systems. This is consistent with the belief that linguistic change is a gradual process and is of varying proportions. In sociolinguistic studies it has been shown that the replacement of linguistic categories or rules is not categorical and sudden, but rather it is rule-governed and conditioned by linguistic or non-linguistic environments (Labov 1966; 1969). Bailey has captured the concept of the gradual spread of linguistic rules in his Wave theory (Bailey 1974), where rule spread is first evidenced in the heaviest environments, i.e. those favouring the application of a rule, and reaches the lightest environments last. Such environmentally-conditioned changes are empirically shown in implicational scales (2.3.2 below). Since language learning is also a kind of change by the addition of linguistic rules/categories it is logical therefore to posit an IL which allows for overlappings and is continuous.

Secondly, we have argued above(2.2.1.3)that learning implies development, therefore the IL should be developmental, i.e. one that is increasing in complexity and is goal-directed. A non-developmental continuum of equal complexity is possible only in contexts of non-learning, e.g. the sociolectal continuaa which are described in terms of 'distance' or degrees of restructuring from some standard or norm (Corder 1977). Developmental continuaa on the other hand are described in terms of some degree of relative simplicity in relation to the second or target language.

It is interesting to note that Corder departs from the account of variability in L1 research, in that it is not seen as a one-dimensional phenomenon - variability due to development and progress in L1 acquisition studies, and variability due to socio-

psychological factors in sociolinguistic studies. Rather in Corder's theory, variability is seen as being two-dimensional: vertical variability is the result of movements over time, and horizontal variability which is the result of variables at a particular point in time, such as different tasks, different models and various social and psychological factors.

What is appealing in Corder's concept of the IL is that it is comprehensive - providing for an account of the starting point of the IL, its continuous and dynamic nature, its differences from other types of continuaa, and an account for variability. Secondly, meaning, semantics and communication are given an important place. Lastly, it is consistent with prevalent theories of learning, especially language learning, and theories of variability in sociolinguistic studies.

The IL hypothesis mark some important shifts in theories regarding the learning of L2. It also gives necessary direction to L2 research. So far, work in L2 research has been within a restricted area of Contrastive Analysis and Error Analysis, the first placing the L1 in an undeserved central place as a reference point and the second promoting wrong notion of 'errors' because the learner's language has been analysed only as deviations from the TL norm. There was no attempt to see or study the learner's system in its own right, nor to study the process of second language learning. The 70s were armed with more concretely formulated theories and better scientific methodology for data collection. 'Errors' are now being analysed to know more about learning and communicative strategies and processes, and to provide an indication of learning taking place. Since Corder (1967) posits that learners' language is a 'system', researchers have been trying to empirically prove that it can be accounted for; a set of variable rules is usually hypothesized for an IL system. Also, the view of IL as one that develops over time gives rise to the 'order' or 'sequence' studies. Lastly, the role of the L1 in second language learning is now being examined afresh, without necessarily going to the 'interference' notion in Structuralist theory.

2.2.2. The Morpheme Order Studies

2.2.2.1. Dulay and Burt's 1973 study of the acquisition of eight grammatical morphemes by 151 Spanish-speaking children was the pioneering work in SLA research. The methodology was mainly adopted from L1 research, especially that of Brown (1973) and de Villiers and de Villiers (1973). The main findings is the "common order of acquisition" (1973:256) for all the three groups of subjects when the Bilingual Syntax Measure (BSM) is used.

This study is important in L2 research for the following reasons:

(a) It was the first attempt to adopt Brown's procedures of data analysis and scoring method (90% criterion in obligatory context) in SLA

(b) It paved the way for subsequent studies which give rise to issues and hypotheses related to L2 learning theories, the relationship between L1 and L2, methodology and analysis in L2 research etc. Encouraged by the results, these researchers put forward the Creative Construction Hypothesis (1973, 1974b, 1975a) which postulates that:

  (a) the sequence of development is the same for native and L2 learners (L1 = L2)

  (b) the sequence is the same for L2 learners from different linguistic backgrounds

  (c) the L1 plays no part in the learning of a second language, nor in the sequence of development.

The points put forward by Dulay and Burt have been seriously questioned by other researchers in the light of their own findings. Hakuta (1974a) found that the order of acquisition of 15 grammatical morphemes by a five year old Japanese girl acquiring English in a naturalistic environment is different from that reported by Brown (1973) and by de Villiers and de Villiers (1973). He therefore suggested that differences between first and second language learners exist because of the presence or absence of the semantic notion expressed by these English morphemes in the L1 and other factors like phonological interference. Hakuta's results are again inconsistent with those of Bailey, Madden and Krashen (1974), who explored the possibility of a 'natural order' in 73 adult ESL

students with 12 different L1's. They reported (a) similar sequence of the total group with Dulay and Burt's study, (b) similar sequence for the Spanish subgroup and the others. They also supported the view that L1 does not have a role in L2 acquisition. Secondly, they are of the opinion that adults and children use common strategies and processes in L2 acquisition.

Meanwhile Dulay and Burt (1974a) expanded the number from 8 to 11 morphemes and used an expanded version of the BSM to investigate the acquisition of morphemes by Chinese and Spanish speakers. They found that the sequence of acquisition is the same for both groups though different statistical methods of computation and analysis were used to test the stability of the results. They felt that rank order methods used so far give the wrong impression that the grammatical structures are acquired one at a time, since rank orders are linear. Rather, groups of structures typically cluster with very close scores, implying that each structure is not learned independent of the preceding and succeeding items.

To capture this important fact, Dulay and Burt's next study (1975b) used the ordering theoretic method (OTM) based on Bart and Krus (1973). The OTM is a hierarchical model which assumes that there is a relationship among items or structures which are distributed into branched hierarchies. The method therefore shows those groups of structures which are acquired at about the same time to have a different relationship from other groups. Such statistical procedures enable the researchers to present a more accurate picture of the language development and therefore is an important methodological breakthrough in SLA research.

This method of analysis was adopted by Krashen, Madden and Bailey (1975b) to reanalyse their 1974 data. They found similar hierarchical relationships as Dulay and Burt's results.

Meanwhile, other researchers too became involved in this promising field of morpheme order studies (henceforth MOS). Fathman (1975) developed her own elicitation technique called the SLOPE test to investigate the acquisition of 20 morphemes by 120 Korean and Spanish six to fourteen year olds. This cross-sectional study reports the general sequencing of structure to be similar to that of other studies. This supports the natural sequence, since

the scoring technique and the testing device was different. It counteracts the doubt posed by Larsen-Freeman (1975) who raised the question - could the order be an artifact of the elicitation technique? To find the answer, she used a battery of four other tasks besides the BSM in her study of 24 adult subjects from four language backgrounds. Her findings are: (a) the L2 natural order is different from the L1 order, (b) the L2 order is the same for all 24 learners irrespective of the L1 when the BSM is used, though the L1 could account for some of the variability exhibited by different groups, (c) the order is not the same across tasks, i.e. the order for the speaking (BSM) and the imitating tasks correlated with that of Dulay and Burt's (1973, 1974a), Bailey et al (1974), but this is not true with the writing, reading and listening tasks. She concludes that the order could be an artifact of the BSM.

A series of studies were reported by researchers who are now involved in the investigation of the natural order using different elicitation techniques. Krashen et al (1977) examined the spontaneous speech of 33 adults from six different language backgrounds. Again, the sequence was similar for the acquisition of 11 morphemes. Fuller (1978) adopted Fathman's oral and written SLOPE test to find out the order of acquisition of 20 structures by 80 adults, divided into Indo-European and Non-Indo-European groups. Her results show (a) that the acquisition order is similar for all 16 linguistic groups, (b) for the five structures which had been examined in previous acquisition order studies, the same order was found as in earlier studies, using the rank order studies analysis, (c) for structures already analysed in Dulay and Burt's (1975b) hierarchical analysis study, the ordering relationships were virtually the same.

The next focus of interest was the order elicited by the written mode rather than the oral mode as has been the case in most of the above studies. Andersen (1978b) used the written paragraphs of 89 students who have had around ten years of formal ELT. The acquisition order and the hierarchy order is close to the Dulay and Burt's study and has high correlation with Bailey et al's (1974) sequence. Krashen, Butler, Birbaum and Robertson (1978) used the free composition of 70 adults from four different L1's, and found an

acquisition order similar to those already discussed. Fuller's study (op.cit) also includes the written version of the SLOPE test. The five structures examined were found to be similar to the oral sequence. Also, she found the same ordered groupings for the written mode that she had found for the oral test.

Thus, nearly all studies show similar order of acquisition, regardless of the subjects' L1, age, linguistic situations, type of testing methods, written or oral mode, and different methods of analysis. In the words of Krashen "natural orders, at least in our laboratory were turning up everywhere" (1981:54).

In spite of these reports, criticisms and questions regarding the validity and usefulness of the MOS began to appear. Rosansky (1976) was doubtful about cross-sectional studies based on instrument-elicited data. Her own ten-month longitudinal study of six Spanish speakers and examination of their unstructured conversations reveal that (a) there was no correlation in the cross-sectional and longitudinal based 'orders' for one individual (Jorge), (b) there was considerable variety among the six subjects. Rosansky therefore cautioned researchers about evaluating rank order results, especially those of cross-sectional studies.

Andersen (1977) was concerned with the then prevailing methods used in cross-sectional morpheme acquisition studies. His criticisms were (a) that the procedures used for L1 research were indiscriminately transferred to L2 acquisition research, (b) that the methods of analysis were obscuring and eliminating variations, thus they fail to reveal true systematicity in the data (p.49). The morpheme accuracy method eliminates much of the data, (c) the inadequacy of the scoring method, which, following Brown (1973), used 90% suppliance in an obligatory context as 'acquired' and the whole range between 0-90% as 'not acquired'. He proposed the Group Range Method as a better scoring method which reveals systematicity in the data without eliminating individual variation. (d) Also, the MOS do not constitute natural groups or related categories. His suggestion was that morphemes should be studied in natural groups, such as NP-related or VP-related morphemes. Lastly, the 14 or so morphemes were not generalised to specific linguistic structures in specific context of communication.

From the continent, writers like Clahsen and Pienemann, and Wode raised some questions about the merits of the MOS. Clahsen and Pienemann (1981) observe that an interpretation of acquisition as a linear process does not allow one to find out the different degrees of relevance of the linguistic features corresponding to the psychological, social or language-internal factors. Variations within the developmental stages therefore cannot be explained. Wode et al (1978) criticised the morpheme order approach as one which focuses exclusively on the relative chronology of target-like mastery of linguistic items and therefore excludes the stages of development leading towards the TL norm. They point out that a model of second language learning should reflect developmental stages. In this and other papers (Wode 1976, 1981) Wode proposes that research in acquisition should focus on developmental stages in order to trace the process of development. Secondly, the MOS do not take account of the formal properties of morphemes - bound or free etc., as a prerequisite for deciding the possibility of getting an order. Thirdly, Wode raised a controversial point: since some reliance on the L1 is an integral part of L2 acquisition, there can be no universal order of the English morphemes, i.e. L2 is <u>not</u> equal to L1 order (other similar arguments are also found in Wode 1983).

Sampson (1978) pointed out another inadequacy of the MOS - the fact that there is no explanation offered for the occurrence of a 'natural order'.

2.2.2.2A <u>Evaluation of the Morpheme Order Studies</u>

Burt and Dulay (1980) in a lengthy article which summarises and tries to justify the 'order' studies and the method of data analysis, claim that:

> "... a major purpose of the initial sequence studies was to provide some theoretical guidance in terms of where we might look for factors that seem to influence L2 learning in predictable ways. Similarities in the acquisition of structures by different L2 learners in various settings would justify looking further into the ways in which learners' internal mechanisms seem to affect what is actually learned. Further, an acquisition order characteristic of L2 learners would provide

> clues to the structure of internal cognitive mechanisms responsible for L2 acquisition. Over and above the provision of theoretical guidance, acquisition order studies could also provide practical guidance in the development of the curricula, materials, and assessment instruments". (Burt and Dulay 1980:266)

In the light of the stated aims, we are justified in asking these questions:

(1) Have the MOS directed us to the "factors that seem to influence L2 learning"?

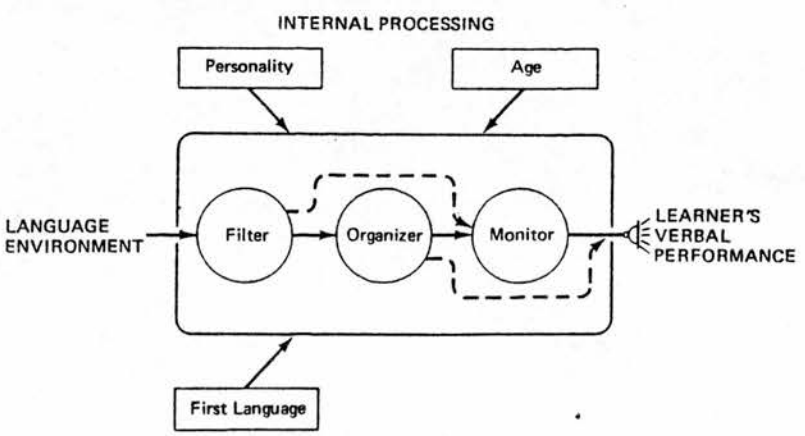
(2) Are we anywhere nearer to knowing about "the ways in which learners' internal mechanisms seem to affect what is actually learned" or about "the structure of internal cognitive mechanisms responsible for L2 acquisition"?

(3) What has been the contribution of these studies to the construction of curricula or materials in language learning?

Dulay and Burt's own answer seems to be in their revised working model for the Creative Construction in L2 acquisition (Dulay, Burt and Krashen 1982:6) reproduced below:

FIGURE 3 Working Model for Some Aspects of Creative Construction in Language Acquisition

FIGURE 1-A Working Model for Creative Construction in L_2 Acquisition*



*An updated version of the chart on page 100, in *Viewpoints on English as a Second Language*, edited by Marina Burt, Heidi Dulay and Mary Finocchiaro. New York: Regents Publishing Co. Inc., 1977. Reprinted by permission.

The 'internal mechanisms' or the 'three internal factors' are the Filter, the Organizer, and the Monitor; the first two being the "subconscious processors" and the last a conscious one. The Filter screens out some of the linguistic input because of the learner's individual motives, needs, attitudes and such other emotional factors. The Organizer, as the name implies, sorts out the new language system and builds up the rule systems of the L2 in specific ways. It is productive because it is responsible for generating sentences not learned through rote memorization. Lastly, the Monitor consciously process linguistic information, e.g. conscious memorization of rules and their application in performance. The above characterisations of the internal processing mechanisms seem to answer point (1) above, but we should not lose sight of the fact that this revised model (1982) comes almost nine years after the first morpheme studies (1973) and five years after the original version (Burt, Dulay and Finochiaro 1977), years during which other scholars have been working and unearthed more facts about L2 acquisition. The Filter, for example, is also derived from the work of Schumann and his associates (1976, 1978b). The Monitor is a notion that Krashen and his associates introduced. The Organizer is identified with Chomsky's "language acquisition device" (Dulay et al 1982:54) and is a different term for the "mechanisms", "procedures", "processes" proposed by Corder in 1967.

The answer to point (2) is rather disappointing: in the words of Dulay et al (op.cit.:52): "we cannot yet fully specify its operational principles", i.e. we are nowhere closer to an understanding of the relationship between the postulated innate language mechanisms and the way a language is learned in a sequential order. Again, turning to L1 research and Brown, Dulay and Burt (1975a) tried to find an answer in Brown's (1973) prediction of grammatical and semantic complexity and found that "neither grammatical nor semantic complexity, nor both combined, could explain the learning order found for L2 learners".

This is not surprising. The notion of complexity, though appealing, cannot be imported wholesale into acquisition studies. Chomsky and Halle (1968) made it clear that derivational complexity

in terms of the number of transformational rules applied is a good measurement of linguistic structures, but does not necessarily reflect the psychological reality of these structures. The fundamental problem seems to be the application of concepts meant for linguistic descriptions within a particular framework (TG) to acquisition studies and the explanation of acquisition orders. Hence the unsuccessful attempts both in L1 (Brown 1973) and L2 (Dulay and Burt, op.cit). Hence the unending circularity of the complexity arguments (Corder 1983, personal communication) to explain the sequences, e.g. to quote from Dulay et al (1982:58) "the possessive -s marker ... is considered more complex ... than the progressive -ing because it is learned later" to which we can add: "it is learned later because it is semantically or grammatically more complex", an argument which takes us neither here nor there. Again, how can we prove that one form or structure, e.g. -s or -ing 'is no' or 'is not', is more complex than the other? So far, the criterion has been in terms of numbers. If so, then -s and -ing morphemes should be of equal complexity. Again, the full passive "The window was broken by someone" is acquired later than the shortened form "The window was broken" which is the result of an extra deletion rule (Slobin 1973, Bever 1970). Language learning is not a simple equation of x + y = the answer, because language is not numbers. Defining semantic complexity as the number of major components of meanings may be valid for descriptive purposes up to a point, but it does not reflect much about how useful those meanings are. Let us take a well-tested pair: the Progressive -ing and the 3rd Singular -s morphemes, as a case in point.

The major components of meaning of -ing and -s may be:

-ing	-s
+ Past -	- Past + Singular + 3rd Person
+ Progressive + Continuous - Completion	

Numerical counts show that -ing has more components of meaning semantically; yet it has been shown in L1 and L2 studies that it is one of the earliest to emerge. Somehow we have to account for these facts and look for other reasons. Stagnation in SLA research is the result of our inability to explore further than the lines drawn by L1 research, which, in turn, was mainly restricted by the concepts of a particular linguistic theory (TG). The outlook seems to be more promising now as researchers spread out into other directions - discourse and pragmatics, semantics and functional approaches, language in communication and so forth. It is generally believed that language learning is basically the acquisition of a communication system, therefore meaning and use has to be central in language acquisition studies. In Chapter 7 these concepts will be developed further and the relationship between acquisition orders with the essential meaning and utility of acquired forms will be discussed.

To go back to the Organizer: as it now stands, it is only a general postulation, elusive and vague, unable to specify the basic underlying principles of operation. To be fully operational, the Organizer has to be more concretely defined. It possibly needs a semantic-pragmatic base. In other words, what we are suggesting in answer to the question "what are the principles that guide the operations of the Organizer" is - it operates on the basis of semantic and communicative utility. Again, the concept of functional and productive utility will be discussed in Chapter 7.

The last question posed above concerns the "particular guidance" in pedagogy. The implication is that, if a universal order is found, and if such an order conflicts with pedagogical orders (Syllabuses), then surely the natural order should be the basis of curricula and materials, since it reflects a psychological reality. Krashen et al (1975b)has discussed these theoretical applications of natural order studies at length. Corder (1967) has earlier discussed the 'learner-generated sequence' and the 'instructor-generated sequence' and the possible conflict between the two.

How far has this practical guidance been followed? To our knowledge, no textbook writer has taken up the natural sequences as

a basis for curriculum and textbooks for language learning.

In the same article Dulay and Burt offer practical guidance also in research methodology for the study of acquisition order. The shortcomings of these methods of data analysis and display have already been pointed out by Andersen (op.cit). Thus the methodology of the MOS needs to be supplemented by other methods of analysis, if we are interested in the whole learning process, and not just in the rank orders of items. Better ways of data analysis will be discussed in subsequent sections of this chapter.

2.2.2.2B Interim Summary

In spite of the various shortcomings, the importance of the MOS should not be underestimated. The studies pioneer other researches in SLA - such as the acquisition of Negation, Interrogative structures (WH-Q and Y/N). Copula, Complement types, Relative Clauses etc. As earlier noted, the MOS have given rise to many important and interesting theoretical issues in second language learning.

2.2.3. The Monitor Model

A theory that arises from the MOS is the Monitor Model, originally formulated as an account of adult performance (Krashen 1977a,1977b) but now extended to child L2 learners (Dulay et al 1982: 8).

Larsen-Freeman's report (1975) that she did not find a natural order for reading, writing and listening tasks led to Krashen's postulation of the Monitor or Conscious Grammar (1977a, 1977b). The Monitor Model has an editing function and can be operated by the learner under specific conditions to improve the accuracy of easy taught rules like the 3rd person singular -s or the regular simple past -ed morpheme, hence disturb the natural order. Conditions which allow for focus on form, delayed response and accuracy-oriented tasks, like Larsen-Freeman's discrete-point task, plus the learner's knowledge of the rules and the desire to use those rules, are most conducive for monitor use. Krashen et al support the hypothesis by several studies (Krashen et al 1976, 1978; Houck et al 1978). The last mentioned especially seems to provide evidence that tasks

which are focused on communication show a natural order, while tasks which focus on form show a variant order (or 'unnatural' order) identical to that found in Larsen-Freeman's study.

Between 1976 to date, Krashen has been developing his theory to include several other related hypotheses, each of which will be discussed below:

2.2.3.1.The Acquisition : Learning Hypothesis

The basic tenet in this hypothesis is that there are "two independent systems for developing ability in second languages, subconscious language acquisition and conscious language learning, and that these systems are interrelated in a definite way; subconscious acquisition appears to be far more important" (Krashen 1981:1).

The importance of acquisition lies in the fact that it is the learner's own internalization of rules from input data in meaningful communication. It is therefore the result of the learner's subconscious interaction with the data, guided by universal and innate mechanisms. It is also responsible for the generation of an infinite number of learner's utterances governed by systematic rules.

The learning component on the other hand cannot initiate utterances and is available only for the purpose of editing, hence its peripheral role. It evolves in the climate of explicit formal tutelage, learning of pedagogical grammar rules, error correction and classroom exercises. The conditions of its use and the type of learners who use the Monitor are very limited. When used, at the most it can improve the accuracy only of low-level morphological and grammatical forms.

2.2.3.2.The Attitude : Aptitude Hypothesis

Krashen related this distinction to the acquisition : learning hypothesis. Attitude is said to be directly related to acquisition and only indirectly to conscious learning. Positive attitude to the target language and/or its speakers makes the acquirer open to input data and activates the language learning mechanisms.

Aptitude has more to do with the states of mind such as grammatical sensitivity "the individual's ability to demonstrate his awareness of the syntactical patterning of sentences of a language" (Carroll 1973:7), phonetic coding ability, inductive ability, and verbal intelligence. Since learning is a conscious process, these abilities are useful for learning a language in a conscious way.

2.2.3.3.The Informal : Formal Linguistic Environments

Krashen puts forward the case that the acquisition : learning distinction helps to solve a puzzle in SLA research: the contradictory reports about the effectiveness of informal or formal learning. In Krashen and Seliger (1975) Krashen (1981:40-50) Krashen discusses several types of linguistic environments under two hypotheses:

(1) The informal environment can be efficiently utilized by the adult language learner

(2) Formal study or its essential characteristics, is significantly more efficient than informal exposure in increasing second language proficiency in adults.

Hypothesis (1) is supported only if formal environment is again subdivided into intake-type and exposure-type. Intake-type exposure could be in the classroom when L2 is used as a medium of instruction (Krashen 1981:41) or outside the classroom when L2 is used as a language of communication (Carroll, 1967). It would seem that the context is not important, but the way L2 is used. Intake-type use implies active, meaningful use of language and therefore encourages acquisition. Exposure-type, on the other hand, does not always lead to acquisition. This is in keeping with reported studies that when language is not directed to the learner there is no learning.

Formal learning could be in the classroom or self-study outside the classroom. It is characterised by rule-isolation and feedback (error-correction and/or detection) sometimes with deductive presentation of rules. Support for hypothesis 2 can be found in Carroll (op.cit), Krashen and Seliger (1975), Krashen et al (1974). Krashen's conclusion is that both formal and informal

linguistic errors contribute to language acquisition.

2.2.3.4.Comprehensible Input and Simple Codes

Krashen's hypothesis that simple codes such as teacher-talk, and Foreigner Talk aid second language acquisition for adults (Krashen 1981:132) is related to the discussion on different linguistic environments and the difference between Input and Intake (Corder 1967, 1971). Two questions are asked (a) whether access to simple codes help the acquirer to acquire faster and better, (b) whether such codes are linguistically appropriate for optimal language acquisition. Linguistic appropriateness has to do with the notion of comprehensible input. Krashen observes that "children progress by understanding language that is a little beyond them" (Krashen 1981:126), i.e. an i + 1 input. Classroom exercises cannot always be tuned to a student's stage or competence - if they are too easy students are bored, if too difficult frustration sets in; in either case there is a loss of motivation. If they are at the right i + 1 target, it is still difficult to gauge whether the input is enough for intake. Lastly, classroom exercises usually lack the anticipation and review that simple codes provide automatically. Krashen's conclusion is that "the use of simple codes may have some real advantage over classroom exercises" (p.133). The value of the classroom therefore rests in valuable teacher talk for optimal input and acquisition.

2.2.3.5.Evaluation of the Monitor Model

The rather lengthy discussion of Krashen's theory is inevitable: next to the IL Developmental Continuum hypothesis it is probably one of the most important theories of SLA. The point is not whether it is right or wrong, but the issues it provokes. Secondly, the theory has direct relevance to the classroom - acceptance of the theory in part or the whole means a revision of the traditional view of teaching in the classroom; rejection means otherwise.

In the attempt to critically and objectively assess the ideas in the theory, and in the course of the discussion, it will be clear which parts of the theory are acceptable to us and which are not.

The basic weakness in the theory is the separation of acquisition and learning as 'two independent systems', the implication being that an IL of a learner who has both learned formally and acquired informally is divided into two components. This is conceptually very difficult to imagine because for such a learner, there are two sets of rules kept separate (possibly in the left and right hemispheres). A more rational and commonsensical view is to conceive linguistic knowledge (here the IL system) as consisting of one set of variable rules, the use of which are influenced by the demands of situations, tasks or other internal or external factors.

The separation of acquisition from learning provides no passage for one to filter to the other. For example, for a Japanese who has formally learned English for some years and comes to an English-speaking country and interacts extensively with native-speakers, the theory would predict that he will internalise new rules in the acquisition component, while his learning component continues to be a supplementary Monitor.

The same kind of separation between the conscious and unconscious creates many problems. In Dulay et al (1982), Krashen redefines learning as conscious linguistic processing, e.g. conscious attention to linguistic form in a drill, conscious memorization of a dialogue, conscious formulation of sentences or correction of the same. The realms of the conscious and the unconscious applied to linguistic use is unprovable. Also, it may be possible that what is initially learned consciously will eventually be used in a non-conscious way. This applies to the learning of some rules like 2 + 2 = 4 which does become automatic after a short while. Such instances show the possibility of leakage from the conscious to the unconscious or vice versa.

Though the Monitor Model originates as an account for variable performance of adults, it fails to fully explain variability. Errors are posited as unmonitored, developmental products; target forms are either monitored or acquired forms. Such a view restricts the possible causes of 'errors' which are the results of transfer, borrowing, overgeneralisation, false analogy and many other factors. The monitored : unmonitored

dichotomy can neither adequately account for acquired forms nor for the different types of 'errors' evident in IL data. It also fails to account for variable performance in any other light than as 'monitored : unmonitored'. Other models (Corder, 2.2.1.4 above, Tarone 2:24 and Bialystok 2.2.5 below) have attempted to explain variability in a more comprehensive way.

Positing a monitoring device for linguistic performance is a useful concept. However, the theory would gain in strength if the monitor is incorporated within the IL system which, if we follow Corder, Dulay and Burt and others in the nativist school, is mainly an acquisition system. Also there should be a connecting link between acquisition and learning to allow for movement between them.

Krashen's formulation of different types of linguistic environments clarifies the contributions of these linguistic environments to language learning, a concept which will be useful in research. The same can be said about the notion of optimal and comprehensible input as potential intake.

All in all, Krashen's persistent research and theoretical formulations have made SLA a more interesting field because of the heat they generate and provides researchers with a wider area to investigate.

2.2.4 Tarone's Capability Continuum

Tarone's paradigm (1982) emerges as an account for variable performance. The monitored : unmonitored dichotomy of the Monitor Model is replaced by a continuum of styles which change because of attention shifts, a notion adopted from Labov's (1966, 1969) work in sociolinguistics. The Labovian axioms according to Tarone also applies to IL speakers, i.e. (a) every speaker has more than one style which is changeable according to situation and topic, (b) the styles form a continuum and are defined by the amount of attention paid to speech, (c) the most systematic and regular style is the vernacular where there is the least amount of attention. The superordinate style on the other hand is highly fluctuating because it is permeable to TL forms or to the L1 prestige forms (especially in phonology).

Tarone's paradigm scores over Krashen's theory because it

conceives variable performance along a continuum rather than a clear-cut distinction between monitored and unmonitored styles. Secondly, the paradigm allows for movements from one style to the other, in the way shown below.

FIGURE 4 A Representation of Tarone's Style-shifting Continuum

	Vernac.	Style 1	Style 2	Style n	Super
(a)	C(0%) $\longrightarrow$	V_1 $\longrightarrow$	V_2 $\longrightarrow$	V_n $\longrightarrow$	C(100%)
(b)	C(100%) $\longleftarrow$	V_1 $\longleftarrow$	V_2 $\longleftarrow$	V_n $\longleftarrow$	C(0%)

In the above figure, (a) shows movement from the vernacular style which may have a categorical rule specifying 0% suppliance of rule x. Movement from left to right ($\longrightarrow$) shows different degrees of variable uses of the rule. The assumption in (a) is that the internalization of IL begins in the unattended, casual style through acquisitional universals. In (b) the first internalization begins in the superordinate style, when the learner incorporates a new rule consciously after monitoring (Hyltenstam 1978b:6). The new rule then spreads to less formal types of performance, and it will finally show up in informal oral production.

However, like the complexity explanation in L1 and L2 acquisition theory, the capability continuum suffers from a basic problem; the wholesale adoption of an L1 Sociolinguistic theory to IL variability phenomenon. In the original Sociolinguistic model, the choice of one style or the other is influenced by psycho-social variables like setting, topic, interculators, identification and so forth. The basic concept underlying style-shifting is the use of language <u>beyond</u> the communication of linguistic meaning, such as the subtle communication of power or of solidarity and oneness. Style-shifting therefore is generally identified with communicative competence (Hymes, 1971a) which is over and above linguistic competence. It is logical to assume that an IL speaker has no such means at his disposal. In other words, such options are inappropriately applied to learners who are

still struggling desperately to communicate the basics. The learner has little or no choice, he has to make do with what he has.

Besides attention, Tarone does not specify the parameters of style-shifting for an IL user, except for those implied in the first axiom, i.e. situation and topic. The term 'attention' too is more applicable to the L1 native speaker in possession of a complete linguistic and communicative competence; for an L2 learner maximal attention without knowledge of the target form or the rules to produce them does not increase accuracy or guarantee the suppliance of a rule. In Seliger's (1979) study on the nature of and function of language rules, it was found that there is no correlation between knowledge of a rule and performance. Since the study is designed to focus on form, maximal attention is involved, yet three out of four adults scored zero.

2.2.5. Bialystok's Model of Second Language Learning

While Tarone's theory of linguistic variability derives from sociolinguistic principles, Bialystok addresses the same problem from a psycholinguistic viewpoint. The model (1978) outlines the relationship between input, storage and use of linguistic information. Different learning situations and learning experiences bias the type of input, e.g. traditional language classroom promote knowledge of rules, the ability to articulate pedagogical rules, the ability to solve grammar exercises and such other classroom practices. On the other hand, exposure to native speaker's speech encourage actual communicative use, fluency and the ability to infer from context.

Secondly, language is mentally represented in three different ways: (a) other knowledge, e.g. knowledge of other language(s), knowledge of the world, of cultural associations and so forth; (b) explicit knowledge which is formal knowledge is related to metalinguistic awareness and pedagogical knowledge of rules; (c) implicit knowledge is intuitive, informal knowledge usually unanalysed and relatively automatic.

Both input and mental representation of linguistic knowledge are directly related to the use of that knowledge, i.e. differences

in each (input-type and mental representation) can be seen in their effects on the output, e.g. informal exposure develops implicit knowledge, in the ability to use language automatically and spontaneously. On the other hand, a strictly pedagogical approach bias the learner to an explicit and metalinguistic knowledge and the learner may not be able to use linguistic information fluently.

Unlike Krashen's postulation of two linguistic systems, Bialystok maintains that the differences in the formal and informal sources of linguistic knowledge does not represent any physiological mapping in the brain, but rather "they refer to three types of information the learner brings to a language task" (Bialystok 1978:72). Secondly, they are not compartmentalized but interact with each other. In a review of Bialystok, d'Anglejan (1979:2) observes "the crux of the matter is the question of how formal and informal knowledge interact".

Bialystok's model arises out of her primary interest in language use and proficiency. The basic questions asked are:

(a) What is the relationship between knowing and using linguistic forms?

(b) Why do learners differ in their use of language in a particular task?

(c) Why does a learner perform variably in different tasks?

Bialystok (1981) examines second language proficiency and proposes a psycholinguistic framework for exploring the basis of that proficiency. Here, proficiency is seen as comprising of two factors: (1) The analysed factor which is related to the degree of control over linguistic information. This control of the structure of knowledge is responsible for the different application of knowledge to various situations. (2) The automatic factor is related to relative access to linguistic information in terms of fluent and non-fluent performance. The two factors are seen as continuaa: along the factor analysed, there is a continuum ranging from non-analysed knowledge (where the underlying formal constituents are not identified) to analysed knowledge (when the formal structure and the relationship to meaning are transparent). As a learner

progresses, he gains an increasing control of the structural properties and relations governing knowledge, thus he will be able to make more flexible uses of the structure in new contexts, to modify that structure for rhetorical purposes, and so forth. Similarly, non-automatic knowledge restricts the learner in fluent use and easy access. As he progresses along the automatic continuum he shows greater ability to retrieve information and gain easy access for speedy processing in tasks like fluent conversation and dialogue. Development of control and access are independent, so that learners may be at different points of the continuaa yielding variable performances.

Another use of the two factors paradigm is seen in the task analysis (Bialystok 1982b) to predict task difficulty in terms of control and access. Thus, a multiple-choice task is + Analysed - Automatic; Judgement of overall grammaticality, based on intuitive knowledge, is - Analysed - Automatic. A task which places more linguistic and cognitive demands, like a debate, is marked on the two factors, i.e. + Analysed + Automatic, and is therefore more difficult

The paradigm is an attempt to propose a more psycholinguistic origin regarding variable performances than the ones offered so far. Variability has to be seen as the result of different degrees of a learner's control of and access to linguistic information. So far, measurement has been in quantitative terms like percentage of accuracy in the morpheme studies. Bialystok is of the opinion that "while a quantitative view of proficience provides a useful model for language testing and pedagogy, a qualitative view has been recently recognised as necessary [1] to the description of language proficiency and the construction of developmental paradigms" (Bialystok 1981:1). The paradigm she proposes can be integrated in other componential models of proficiency in order to arrive at a more comprehensive description of second language learning and use.

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(1) 'necessary' because "quantitative notions of language proficiency which assess a simple dimension of the learner's performance have limited power in reflecting the learner's actual ability with language" (Bialystok, op.cit).

2.3. Variability Analysis and Implicational Scaling

The theories discussed above are concerned with the reasons for variable performances and are therefore in accordance with Labov and Labov's observations that "the study of acquisition is necessarily the study of language change and variation" and that "the view of language as a discrete, invariant set of categories cannot deal with change in any rational way" (Labov and Labov 1978:1). These writers have proposed that there should be a systematic approach to variation in order to fully account for the observed data. Methods used in variability analysis in Sociolinguistics could be applied to acquisition studies. It is therefore necessary to give a brief resume of variationist methods before relating variability analysis in SLA.

2.3.1. Variability Analysis in L1 Research

Labov (1966) has demonstrated that speech community shows patterned variation in the use of its verbal repertoire and such variation can be related to sociological variables. Systematic variability form a pattern across the various socio-economic levels in a stratified society. To capture this fact, the concept of variable rules is found to be useful, as also the statistical quantification of variants and the contexts (linguistic or otherwise) in which they appear. Therefore a variable rule "captures the system underlying variable performance" (Dickerson 1976) and the identification and quantification of variants and their environments display the inherent pattern underlying variation. Thus a variable rule of the type

$$X \longrightarrow Y \begin{cases} a -- \\ b -- \\ c -- \\ d -- \end{cases}$$

states that a linguistic category or element is realised as Y first in environments a, then b, c and so forth. In other words, a variable rule is "a rule of grammar with a variable output and a statement that at least one factor in the environment influences the output" (Labov 1976:14). Such a rule captures that X is not

realised as Y in all environments at the same time. Secondly, a variable rule differs from a categorical rule

$$X \longrightarrow Y \ / A -- B$$

in that it does not specify the realization of Y in the context A -- B 100% of the time.

The concept of variable rules finds support in the work of other Sociolinguists and gives rise to different theories:

(1) The Quantification Paradigm (Cedergen and Sankoff 1974) which views variability as a central focus of linguistic competence

(2) The Dynamic Paradigm (Bailey 1974) which sees variability as the spread of language changes over time and geographical space. This paradigm, known also as the Wave Model of linguistic change is based on the premise that a variable rule for a linguistic change begins in the heaviest environments (where all the constraints favouring its application are present) then spreads to successively lighter environments until it reaches the lightest

(3) The Implicational Model, first applied by de Camp (1971) in his study of post-Creole continuum in Jamaica. Speakers ranging from the lowest (basilectal) to the highest (acrolectal) are placed on implicational scales, and was shown to correspond to socio-economic data. Bickerton (1975) used implicational scales to compare social variables with hypothesized linguistic change. He found that informants ranked implicationally in regard to certain linguistic variables correlate to social or regional differences.

In the study of sociolinguistic variation, contextual constraints or rule application form the basis of implicational scaling. The maximum number of rule application in a particular context mark it as the most favoured environment. Secondly, since language changes gradually, an element X is realised as Y only in one environment at a time; such changes mark a graduated movement ranging from 0% to 100% suppliance of Y.

2.3.2. Implicational Scaling in L2 Research

Like the variable rule methodology which "has proven a successful heuristic procedure for determining the linguistic and other influences on a substantial number of variable linguistic processes" (Fasold 1970:85), implicational scaling too has become an indispensible method for variability analysis in SLA. Anderson (1978:223) observes that "implicational analysis is both a device for displaying variable linguistic data in ways which will reveal underlying systematicity in the data and a theoretical explanatory model". The last point is closely related to acquisitional studies in SLA research. Researchers are interested to know which items are acquired first and how they are related implicationally, i.e. the presence of one item implies the presence of an earlier acquired item. Implicationally arrayed grammatical categories under study show that the acquisitional process is a gradual and systematic one, i.e. there is no sudden acquisition of items. Lastly, rank ordering learners in the scales show variable performance within a group of learners, such as in Table 1 below:

TABLE 1 A Model of Implicational Scales

Environments		A	B	C	D	E
Learners	1	-	-	-	-	-
or	2	+	-	-	-	-
Groups	3	+	+	-	-	-
	4	+	+	+	-	-
	5	+	+	+	+	-
	6	+	+	+	+	+

where A to E are the linguistic contexts, and 1 to 6 are the examined subjects. If a subject has acquired (on the basis of an 80% or 90% cut-off point) an item category, there is a plus; otherwise there are minuses. Implicational pattern in the data, i.e. the norm/TL variant of a variable feature is always used in

context A before B, in the context B before C etc., is mirrored in the scales so that in any row all the pluses come to the left of the minuses. In the model scale above, subjects 1 - 6 show different patterns for a feature which is found to be variable in the group. Subjects 1 and 6 do not vary, since the former has not acquired the feature at all, and the latter has acquired the same and has used it categorically. Subjects 2 - 5 show variable performances, using the target variant in different degrees but in a systematic way, i.e. they use the target norm in context A before B, B before C etc.

Dickerson (1975) was the first to apply variability acquisition in SLA phonology in the study of the acquisition of the English sound system by 10 Japanese learners. Variable production of /l/ and /r/ was found to be related to situational contexts (in and out of the classroom) thus establishing that variation can be accounted for since it follow a predictable pattern of linguistic behaviour. Secondly, the learner's language system, hypothesized to be a system of variable rules, whas shown to be true both in this and in Dickerson (1976). The latter study also incorporates Bailey's Wave Model which is found to be operative in learners' acquisition of second language system. His conclusion is that "sound learning proceeds by gradual and systematic modification of rules in a newly developed grammar in the same way that a sound change is a comparatively slow process but governed alteration of rules in a first language grammar" (p.228). Such observations again indicate that development is along a continuum in a series of overlapping stages, not jumps through a series of discrete, intermediate systems.

Platt (1979) used implicational scaling to examine the order of copula realization in Singapore English (SE) by a group of Singaporeans. The most favoured environments is Pre-Locative, followed by Pre-Verb-ing, Pre-Nominal, Pre-Adjective, in that order. Secondly, it was found that SE has many features found in post-creole continuaa, i.e. one that ranges from meso and basilectal (corresponding with speakers low in social status) to acrolectal speakers (those with English-medium education). It is only this last group which exhibit categorical use of the copula in all four

environments; hence type and level of education is posited as the main variable controlling the linguistic behaviour of different ethnic groups in Singapore. In this way, SE is 'a definite system' and not a chaotic collection of speakers who have acquired varying degrees of the rules of standard English. Moreover, it was found that there were speakers who were in the process of losing one rule and acquiring another, alternatively using the two 'quasi-equivalent rules'.

The method was again used by Platt (1977) in an investigation of the acquisition of the past tense in SE. Level of English medium education is the controlling variable for differences among speakers. It was found that past tense marking was highly implicational and scalable, the order of favoured environments being:

get, be, C + ed, go, have, Vw + d, Vw change, C + d/t

Hyltenstam (1977, 1978a) studied the acquisition of Swedish by 160 adult immigrants having different languages. He used the cross-sectional at time 1 to control the cross-sectional at time 2 and the results of both are compared. The syntactic areas of investigation at the two intervals of time were sentence negation, inversion in interrogative sentences, subject-verb inversion in sentence initial non-subjects, non-inversion in embedded clauses, and the constituent orders between object and verb. Only the first three however have been reported in detail. Here the treatment of negation only will be taken as example of Hyltenstam's method of analysis using variable rules and implicational scales.

Hyltenstam first used implicational scaling to classify different contexts. In an early stage of the analysis, the different sentences (with main or subordinate clauses) made up the contexts. In the second stage, the categories auxiliary verbs (Aux) and main verbs (MV) make up the contexts. In both cases, the scales show evidence that subjects who vary in their placement of negation exhibit an implicational pattern in their variation. Secondly, the scales show evidence that subjects for speakers of different Lls all agree with the same pattern, so that a single scale can be constructed for all learners. In other words, a single

IL continuum is posited, instead of unrelated English/Swedish, Serbo-Croatian/Swedish etc. continuaa.

Hyltenstam posits that the acquisition of negation starts from "the simple undifferentiated point" which seems to be a universal placement of Neg. element before the verb:

X ..... Neg ..... V ^{fin} ..... Y

The learners then pass through two stages of variable placements of negation.

Stage 1 : Shifting Neg. and V ^{fin} so that the Neg. now always comes after the verb

Stage 2 : When the post-verbal Neg. rule becomes categorical, the learner discovers that the rule is applicable only to main clauses; i.e. the new environment he has to take into account now is whether the clause is main or subordinate. Thus there is a reversion of Neg. to its former position, i.e. pre-verb Neg. in subordinate clauses.

The importance of the study is due to the following:

(a) it deals with the acquisition of complex syntactic structures (Negation)

(b) it shows that the stages of acquisition are conditioned by two sets of environments the Aux:MV and main:subordinate clauses distinction, thus, variations are not random, but systematic

(c) it illustrates how two types of variability analysis - implicational scales and variable rules - can be combined for maximum efficiency

(d) it supports certain theoretical assumptions, such as the IL continuum, its developmental character from simple to complex, the pattern of acquisition, the systemacity underlying variability, the restrictions on LI influence, and the possibility of applying the theory of markedness to L2 acquisition (Hyltenstam 1978b).

Anderson (1978) combines a revised version of the Ordering Theoretic Method (Bart and Krus 1973; Dulay and Burt 1974) with implicational scales to examine the use of 13 grammatical morphemes by 89 Spanish speakers. The morphemes are separated into

V-related and NP-related morphemes (following Krashen et al 1975a:45-50; Krashen 1977a). Five implicational scales were constructed to test the following hypotheses (1) that the 13 morphemes form a linear implicational series (2) that the morphemes constitute two separate implicational series one for V and one for NP morphemes (3) that free morphemes constitute one linear implicational series and bound morphemes another (4) that four valid linear implicational series are produced by the intersection of the V/NP and the free/bound distinction. Anderson found that the morphemes do not constitute a linear order in an implicational acquisition, but is only a close approximation to a valid implicational matrix. Hypotheses (2) and (3) have been supported by the scales. The last hypothesis (4) is again supported by the scales. The last hypothesis (4) is again supported by a very high coefficient of reproducibility (R) at .98. The results substatiate the claim that individual variation in the accuracy order for any two morphemes is due to overlap between at least two dimensions - syntactic category (V, NP) and morpheme type (free, bound).

In this study Anderson illustrates that "an implicational model goes far beyond the simple group order that most cross-sectional morpheme studies have focussed on and reveals whatever consistencies there are among the individuals in the study" (p.276). Secondly, implicational analysis reveals the systematicity in the acquisitional process and its possible determinants. Thus, an implicational model provides the researcher with a framework for dealing with systematicity in the data, variability, groups and individuals simultaneously.

Other ways of analysing variability in the transitional grammars of learners have been developed, such as the formulation of Variety Grammars by the Heidelberger Forschungsproject (1978). Acquisition is described as the transition from one grammar to the next (G1 to G2). This is done by forming the union of all rules which occur in at least one grammar, then after each interval of time to indicate whether or not the rule occurs. This is represented as:

TABLE 2 A Model of Variety Grammar

Months	6	12	18	24	32
Grammar	G1	G2	G3	G4	G5
r1	+	+	+	+	+
r2	-	+	+	+	+
r3	-	+	+	+	+
r4	-	-	+	+	+
r5	+	+	-	+	+
.					
.					
.					
rn	-	-	+	-	+

After six months two rules r1 and r5 have been acquired to form G1; after twelve months r2 and r3 are also acquired to form G2 and so forth.

The technique has been successfully used to account for the acquisition of pidginized varieties of grammars by immigrant workers. The importance of the study is its emphasis on variation and on the transitory nature of developing grammars. Such a model allows for multiple, co-existing grammars that make up the learners language.

2.4. Research in the Acquisition of Negation

2.4.1. Negation in L1 Research

The acquisition of English negation represents one of the most comprehensive accounts both in L1 and L2 research. In L1 research, the order of acquisition at certain stages, and the syntactic regularities at each stage, had theoretical interest especially to those who were influenced by the T.G. school. Klima and Bellugi (1966), Bellugi (1967), Bellugi and Brown (1967) approached the problem in relation to the notion of innate mechanisms which internalise and generate syntactic regularities over a period of time in young children. Based on a corpus data, 'rules' were

written, and these were hypothesized as the representation of the child's internal rules for generating negative utterances.

In Kilma and Bellugi's (1966) study, the three stages of acquisition are captured by the following rules:

Stage I : Sentence external Neg. particle
No/Not — Nucleus S or Nucleus — No/S

Stage II : Sentence internal Neg. Appearance of <u>don't</u> and <u>can't</u>
S → Nominal-Aux ^{neg} — Predicate
main verb
where Aux ^{neg} → no, not, can't, don't

Stage III : Full realization of the Aux., i.e. auxs begin to appear in declaratives and interrogatives and are therefore no longer simply part of the Neg. element in the sentence
S → Nominal — Aux — Predicate
main verb
where Aux → do, modal, be + T

Bloom (1970) criticised the purely syntactic interpretation of the data, and tried to arrive at a rich interpretation by taking semantics into account. Thus a sentence like "No Lois do it" (Bloom 1970:148) was interpreted as a Neg. external sentence by the Generativists, but as a Neg. internal sentence by Bloom, who argued that the structure was the result of subject deletion, and 'No' as an anaphoric reference to a prior utterance.

2.4.2. <u>Negation in L2 Research</u>

The syntactic approach is still found to be useful by L2 researchers in negation. Basically, the theoretical motivation for L2 research are the same as that for L1, i.e. finding syntactic regularities to establish the existence of a system (IL); finding a developmental sequence to understand how language learning progresses over time, and finding universal strategies for language acquisition. Also, because the IL system is not totally impervious to L1, to find out the extent of L1 influence.

Ravem (1974, 1978), Milon (1974), Huang (1972), Butterworth and Hatch (1978), Shapira (1978), Neilson (1974) are some of the studies which attempt to find out the stages of acquisition. Some of these are comparable to the stages found by Klima and Bellugi (op.cit). A wide range of subjects, different in age and language backgrounds (Norwegians, Japanese, Taiwanese, Spanish, Arabic, French) as well as type of exposure, show a striking similarity in development. In the words of Ravem (1970:184) "What is perhaps most striking is the extent to which L2 acquisition, in an environment where no formal instruction is given, seems to be a creative process not unlike first language acquisition. The similarities in negation and interrogation are more revealing than the difference".

There are some problems in sentence negation studies. As Schumann (1978a:18) points out, one cannot be certain whether the subjects under study models his speech on standard English or on another societal dialect. Also, researchers differ in their definition of 'stages'. For Schumann "a stage would be defined by the type of structure that is more frequent during that time" but this definition does not hold for others. Then there is the possibility that anaphoric 'No's and single No's could be counted as Neg. -Nucleus forms. Lastly, L1 influence cannot be entirely ruled out. Schumann (1978a:29) hypothesizes that "No-V negation will be most extensive and persistent with speakers whose native languages have pre-verbal negation". German, Norwegian, Japanese etc. with late or post-verbal negation show little data at this stage. Here the 'multi-determined' or two-force error, i.e. natural development and transfer, seems to operate.

Wode's interest in the study of negation stems mainly from his belief that L2 is not equal to L1 since the previously learned language has an effect on the acquisition of the structures of L2. He attributes some negative structures to the L1, some to the IL, and some to the TL. L1 influence according to Wode (1977b) is not interference but the process of overgeneralization of rules from the known (L1) to the new (L2) since some of the German regularities relating to the positioning of the Neg. were apparently carried over to English. In his study on the negation, Wode sets out to define

when precisely learners fall back on L1 knowledge. As regards the 'natural' order in negation, Wode observes that naturalistic L2 acquisition follows ordered developmental sequences.

2.4.3 Negs. Elements and Auxs

Shapira (1978) tried to study the use of Negative sentences in her Spanish-speaking subject Zoila. Her observations are: that Neg. in sentences when Be is used are correct, but not when Be is deleted. Therefore, development towards grammaticality in these sentences depends on the mastery of Be. Further, she found that Neg. in sentences with Aux. verbs other than Be are also ungrammatical. Zoila merely inserts the neg. word No between the subject and the verb, e.g. "You no understand". Lastly, Zoila did not acquire Do-support for negative sentences. This is in agreement with the observation of Butterworth and Hatch (1978) "studies of child first and second language acquisition all share this late acquisition of Do as tense carrier in Negs" (p.239) and in Chamot (1978) who observes that "the principal errors involved the use of No for Aux + Not, and in most cases the Aux. omitted was Do" (p.189).

An explanation for the late acquisition of Do rests in the lack of semantic value (Butterworth and Hatch 1978), Huang (op.cit. p.131). This is in keeping with Slobin's suggestion that grammatical markers carrying some semantic content will be learned earlier than those with little or no semantic function. It would be more fruitful therefore to investigate the acquisition of negation, and of some other structures, from a semantic-oriented viewpoint.

2.5. Research in the Acquisition of Interrogation

2.5.1. Interrogation in L1 Research

Bellugi (1965), Klima and Bellugi (1966) again pioneered research in interrogation in L1. Their findings are described for different stages:

Stage I : Y/N questions are signalled by a rising intonation alone, or intonation with inversion of Aux. or Copula with subject NP

Stage II : The acquisition of some more auxs

Stage III : Development of the full Aux. system, making it possible for the inversion rule to apply. Do is acquired in finite main verb sentence

Commenting on the sudden transition from Stages I and II and III, Ravem (1974:169) says that "the acquisition of auxiliary verbs and inversion of auxiliaries and subject noun phrases are independent acquisition". Bellugi's data (p.118) seems to support the primacy of the first over the second type of acquisition, e.g. You can put these here? You can't fix it) Many other subsequent studies support the fact that the inversion rule is the last acquired in Y/N questions.

The stages of development in WH-Q are:

Stage I : Initial WH-Q without Auxs. e.g. Where Kitty? What you doing?

Bellugi characterised such sentences as routines where the prefixed Q-word acts as a question introducer. The above examples are from a set of routine frames summarised as:

(a) Where NP (go)? (b) What (NP) doing?

Stage II : There are no major changes

Stage III : The development of the Aux. system, so that both inversion and Do-support is made possible, but are not yet acquired by the children in WH-Q,
e.g. (1) What I can put them in?
(2) What you writing about? (3) Where she went?

In model sentences such as (1), inversion occurs first in affirmative before it occurs in negative sentences. In F-MV sentences before the introduction of a Do-support rule, the tense

marker is on the main verb (e.g. went in sentence (3) above.

2.5.2. Interrogation in L2 Research

Ravem's (1974) children show few examples of questions with rising intonation alone, e.g. "Do (you) like Trondheim?" "You are hunger?" However, since Norwegian is very similar to English, it is possible that the children transferred their knowledge of the L1 inversion rule to copular and auxiliary verb sentences. But Do-support, being specific to English, was not acquired till very late. This can be seen in Ravem's failure to elicit Do in the imitation test:

I : Do you like it?
Re : You like it? (Ravem 1974:184)

Ravem remarks that "there is a surprisingly long gap between Reidun's comprehension of questions introduced by Do and her own use of Do" (p.184). When Do was used, it was used, it was not clear whether it was seen as a separate tense carrier or not.

Ravem's report of the acquisition of WH-Q by his subjects is:

Stage I : WH-Q initial sentences without inversion. He observes that though they already knew the switching transformation from Norwegian, it does not seem to have had much effect; nor were they affected by the language data they were exposed to, e.g. What you did in Rothbury?

Ravem's explanation for these sentences is that "the question word is placed in front of the proposition where the agent is specified before the action, as is the case in declarative sentences" (p.189). This explanation coincides with the view that specification of the agent is more 'natural' and basic; inversion on the other hand is not basic.

Stage II : Inversion in copula sentences, then other auxs

Stage III : Some acquisition of Do-support and inversion. Prior to the acquisition of Do, both children used non-inversion and placed the NP in front of the main verb. As in Y/N Q., past tense was marked on the main verb, e.g. What we saw? How you opened it?

These confusions reflect the possibility that Do after Wh may not be as part of the WH-Q word. It seems that Do does not also share the distributional characteristics of other auxiliary verbs and invalidates the hypothesis that Do is included in the general rule for auxiliary verbs. It is to be noted here that Ravem, following the T.G. School, was interested in "use or non-use of these operations (switching, preposing and Do-insertion) at different stages of development " (p.170). Subsequent researchers change their emphasis to the identification of strategies and/or the identification of sources of errors. Thus Huang and Hatch (1978) are interested in the strategies used by Paul, a Taiwanese child. The first is imitation of common questions asked, e.g. Are you ready? What's that? etc. The second involved rule application by rising intonation, e.g. "This slipper?" "Ball doggy?" at Stages I and II, and inversion of can questions at Stage III. Paul was asked a number of "Can you/i ...?" questions as well as "Are you ...?" "Is this ...?" "Do you ...?" Two observations are made (1) that inversion did not start at the earlier stages, (2) that Do-support was not used. Paul continued using rising intonation for all questions with Be or Do.

The same strategies were used for the acquisition of WH-Q. Stage I includes imitated questions "What's your name?" "Where's Bobby?" This continues to Stage II, but evidence of rule application are also found in questions like "Where's pen/car/truck?" where the article is missing. The 's was never deleted, but possibly this is part of the Q. word rather than a copula. Stage III shows the beginning of complete mastery marked by "How many ...?" and Be-inverted questions like "What am I doing?"

In his capacity to imitate amazingly complex sentences and to attach a global meaning to them, Paul shows a striking difference from the L1 learners. Also, it took him four months to learn as much language as an L1 child would normally learn in two to three years. Here again it seems that previous knowledge of an L1 provides the essential experience with language, so that analysis of meaning and of syntax becomes easier. This is evident in the use of the two strategies: sentences originally imitated and stored as single units are analysed into meaningful segments and used through rule applications.

Imitation and incorporated speech, and rule formation, are also used as strategies by Homer, Wagner-Gough's 6 years old Persian subject. Homer replied to questions in very interesting ways - by imitating the whole sentence, but changing the intonation to a suitable falling contour:

J : Is Mark at school today?

H : Is Mark at school today? (Yes, Mark is at school today)

This pattern acts as a frame, and is generalised to Homer's statements and Y/N questions, e.g.

J : Got ya

H : Is no got ya (Don't grab me)

J : Is it bicycle is Judy? (Is it Judy's bicycle?)

H : Is it Misty?

Inversion therefore seems to appear very early via imitation. The second strategy, involves the incorporation of speech segments of others into his own sentences, e.g.

J : Where are you going?

H : Where you are going is home (I'm going home)

Commenting on Homer's strategy, Wagner-Gough (1975:163) says that imitation "may be a way to commit an unanalysed pattern to memory for some kind of analysis or it may be a communication strategy where responses are learned which can later be applied to similar context".

Wagner-Gough not only looks at the strategies of learning employed by a child; she also looks at the acquisition in a discourse setting: the relation between input and output. She observes that "patterns which appear to be highly creative and based on a set of internalised language rules may in fact be patterns from dialogue sets that the learner has lifted from his environment" (p.168) and that the rules for both WH-questions and statements were derived from discourse patterns. Again, "Homer's rule formation and patterns evolve from a process quite different from that of the application of rules to a single sentence nucleus" as implied in Klima and Bellugi (1966). The debate is not conclusive, especially in view of the data produced by Homer after two months of exposure, which show great similarities with L1 studies, e.g. "What draw a tree?" "What takta?" where Is is deleted. Thus it seems that some learners (especially children) do commit to memory what they hear of the new language; it may be a whole sentence frame (routines), segments of sentences, e.g. What's, Do you, wanna, is + v + ing, What dyou, and such other sentence patterns, or vocabulary items. Memorization may be conscious or unconscious, e.g. imitations and repetitions of routines, patterns, lexical items, especially by children unhibited by social mores or in drill classes where they are expected to repeat. Such bits of language gets lodged in the mind as unanalysed chunks, not segmented into separate meaningful units. This may imply that meaning is global for the whole unit. When analysis starts the learner attends to individual lexical or grammatical items. Rule application then begins, producing utterances with systematic errors. Once the learner has construction rules, his utterances can then evidence universal sequences. Hatch (1974), Bialystok (1981a), Huang and Hatch (1978), Hakuta (1974b), Wagner-Gough (1978) and Wode [2] (1981) are of the opinion that learners can proceed from the analysed, implicit

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2. Wode views the process of analysis as 'decomposition' of segments which are again built up into meaningful wholes via construction rules.

knowledge to the analysed dimension. In this view, imitation and memorization are not the only strategies of learning to the exclusion of creative constructions, but they may be preliminary strategies for storage of linguistic knowledge. Analysis of knowledge, processing of linguistic information, rule construction, attention to meaning, are essential for the acquisition and the internalization of L2 rules.

Four studies which focus on the errors and difficulties experienced by adolescents and adults in acquiring interrogation are those of Chamot (1978), Butterworth and Hatch (1978), Shapira (1978) and Schumann (1977). All these researchers report similar findings: the omission of Auxs, especially Do, and non-inversion. Chamot believes that the omission of constituents account for the errors and attributes three-fourths of these omissions to transfer, since neither Spanish nor French have Do-support rule. Again, while these languages and others can express questions by intonation alone, there is some problems in acquiring the inversion rule for the English interrogative system.

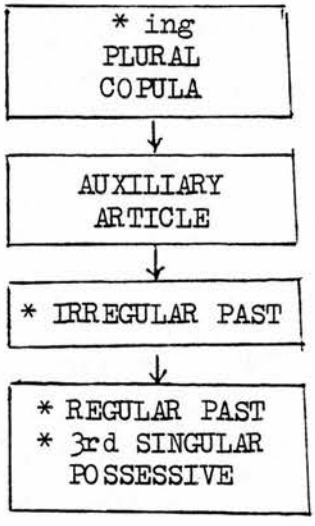
Schumann (1976) proposes another important hypothesis to account for the non-learning of English by some learners. In the Pidginization hypothesis, social and psychological distance from the target language and its native speakers account for the persistence of a pidginized variety of English, especially in adult immigrant workers. This hypothesis focus on the socio-psychological factors in language learning.

2.6. Research in the Acquisition of Tense and Aspect

Except for the work of Simukoko (1981), Agnihotri et al (1983) and Okanlawon (1984), most studies on the acquisition of tense and aspect focussed on a single grammatical category. Examples of such studies are those of Oldstain (1979) on the acquisition of the progressive, and Platt (1979) on the acquisition of the past tense. Ravem's (1974) thesis treated the acquisition of the past tense, and the progressive and perfective aspects independent of each other.

2.6.1. Order of Acquisition Studies

In the MOS research some categories of tense and aspect like the progressive ing, regular past ed, irregular past morphemes and 3rd singular s were included in the 8 - 20 morphemes investigated. Using the hierarchical ordering method (Dulay and Burt 1975) and working on the data from many other researchers, Krashen (1981) suggested the following acquisitional hierarchy:



from Krashen (1981:59)

It can be seen that the MOS made no distinction between present and past progressive and did not include the perfective aspect. Again, the MOS focussed only on the order of the inflectional morphemes without reference to the functional relationships between tense and aspect categories (see 2.2.2 above).

In more recent studies, the order of acquisition for some tense and aspect categories has been reported as follows: (Simukoko 1981:172)

Rank Orders of Task II Items

Sub-test	Grade 4	Grade 5	Grade 6	Total
* Simple Past	1	1	1	1
Future Time	2	3	2	2
* Past Perfect	3	2	4	3
* Present Perfect	5.5	4	3	4
Simple Present	4	6	5	5
* Past Progressive	5.5	5	6	6
* Present Progressive	7	7	7	7

(n = 117 in the total)

* Only the starred (*) categories are relevant to the present study.

The above results obtained by Simukoko are based on data from 117 Bantu primary school learners of English. The elicitation method used was a set of multiple choice sentences of the type below:

John ⟨eats / eat⟩ nsima every evening (p.107)

Jelita is ill and she ⟨has been / is / is being⟩ in hospital since Thursday

The advantage of such a task is that it is easily quantified because the options given for the learners are limited (2 or 3). But it is this limitation of the distractors which makes one question: Are there possibilities of a 50:50 chance of correct : incorrect choice? Is the chosen option really representative of the learner's IL? Can one hypothesise acquisition on the basis of chosen options possibly obtained by chance?

Such elicitation methods have been termed by Agnihotri et al (1983) as closed-format. In their own study of Delhi college and university students, they used an open-format task where the subject had the chance to produce his own version of the verb. Though many tense and aspect categories have been investigated, we will present only the results of those categories relevant to this study.

Stage I : Present and Past Progressive (unmarked functions)
Simple Present

Stage II : Present Perfect

Stage III : Past Perfect

Okanlawon's (1984) study on the acquisition of tense and aspect by Nigerian secondary school learners reports the following order:

Order of Acquisition for Non-past Categories

	Igbo learners		Yoruba learners
1.	Future time expr.	1.	Future time expr.
2.	Pres. Progressive	2.	Pres. Progressive
3.	Pres. Perfect	3.	Pres. Perfect
4.	Simple Present	4.	Pres. Perf. Progressive
5.	Pres. Perf. Progressive	5.	Simple Present

Order of Acquisition for Past Categories

	Igbo learners	Yoruba learners
1.	Simple Past	same
2.	Past Progressive	as for
3.	Past Perfect	Igbo
4.	Past Perfect Progressive	learners

(n = 80 + 80 T = 160)

Overall, Okanlawon's study shows that the non-past is acquired before the past, and the progressive aspect before the perfective.

2.6.2. Acquisition of the Progressive

Ravem (1974) has observed that the progressive is the first to be acquired. His children first used the primitive progressive (Ø + ing) which he maintained is a generic form preceding be + ing. This was explained as the result of the acoustic prominence of -ing while be was considered redundant with regard to expression of 'duration'. Be is acquired when tense distinction is introduced. The primitive Ø + ing was still predominant after 10 months of exposure since the full form be + v+ ing appeared only sporadically. This coincides with Brown's (1973) observation that there is usually a long lag between the appearance of ing and be. It was also found by Ravem that the morpheme -ing was generalised and suffixed to the other constituents in sentences, e.g. "We can making many little houses", "Can you swimming?"

Oldstain's (1979) case study of a Hebrew child revealed that the acquisition of the progressive has a number of consecutive stages, starting from the unstable use of Ø + ing, be + , to the final be + + ing. Secondly, it was observed that the use of Ø + + ing and the full form was not necessarily within the right

context implying duration. Acquisition of function came much later. This was also observed by Wagner-Gough (1974) in her case study of a Persian child, who showed similar development of the progressive syntactically, but the function of the progressive was not defined since the child tended to overgeneralise the use of ing to different contexts.

2.6.3. Acquisition of the Perfective

Ravem (op.cit) isolated three stages after the generic stage (where only the verb is used, e.g. "I see him") in the acquisition of the perfective.

Stage I : have + v + $\emptyset$, e.g. I have try

Stage II : have + v + other participles, e.g. I have eating

Stage III : have + v + en, e.g. I have eaten

That the perfective is a late acquired rule has been observed by many researchers. In Brown (op.cit) there was no appearance of have + en in all Stages I - V. Similarly, Menyuk's (1963) study of 48 nursery schoolchildren revealed that only 8 used the perfective aux. have and less than half of the first graders used it. Agnihotri et al (op.cit) also found that "very few students can control the use of present perfect and past perfect for an action completed before a certain time in the past". One of the reasons posited for the late or non acquisition of the perfective is that it is conceptually more difficult than the simple past or present.

2.6.4. Acquisition of the Simple Past

Again, Ravem's observations on the simple past tense throw some light on its acquisition. In his study, the subjects initially used did as a means of expressing past tense in sentences like "Mummy did make lunch", "He did push ..." When some irregular past were acquired, double past marking was common, e.g. "We did saw ..." Regular past tense, however, took a long time to acquire. Ravem explained this as due to two factors, (i) the redundancy of

a past tense marker where the context of the situation and the adverb indicate past time, (ii) the lack of frequency in past tense use in the child's here and now environment.

Platt (1977b) studied the acquisition of the past tense by Singaporeans in terms of environmental constraints rather than the emergence of the past form exemplified by Ravem's study. The most favoured environments for past tense marking found are:

get, be, c+ed, go, have, Vw + d, Vs Change, c + d/t

Secondly, Platt's study revealed that speakers who were in English medium schools had more categorical use of the past tense than those who were in non-English medium schools.

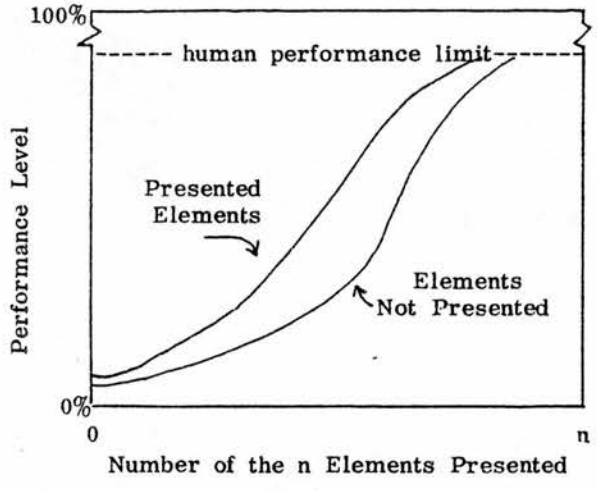
2.7. Research in the Influences of Different Learning Environments

Many researchers have been working on the relationship between language proficiency and types of linguistic environments. Some, like Upshur (1968) and Carroll (1967) have focussed on the formal:informal distinctions. In Upshur's study, 30 university law students were divided into three groups: I - Law classes + 0-hour EFL; II - Law classes + 1 hour EFL; III - Law classes + 2-hours EFL. At the end of the seven week period, it was found that the difference between the three groups was not significant. Upshur's conclusion (p.113) is that "no significant effects on language learning attributable to amount of language instruction were found". He also observed that "foreign language courses may at this time be less effective means for producing language learning than the use of language in other activities". Upshur supports the view that

> "the most efficient foreign language learning is informal and occurs when the learner must make communicative use of the language variety to be learned, and that the internal structure underlying a set of sentences of a foreign language is not completely learned by presentation and practice of that set of sentences"
> (Upshur 1968:111).

An important outcome of Upshur's Experiment (IV) is the hypothesized learning/performance curves of taught and untaught linguistic elements.

FIGURE 5 Upshur's Hypothesized Learning Curves for Presented and Unpresented materials for E.F.L. learners.



Hypothesized Learning Curves for a Closed Language System of n Elements

(from Upshur 1968:123)

The figure above shows that presented elements "are learned somewhat better" than elements not presented. What is interesting is that side by side with learning taught forms, learners are also able to learn untaught forms in the course of a meaningful, communicative use of the TL. Upshur attributed this to the learner's "perceiving the internal structure of presented elements and somewhat more slowly inferring structure for the larger system" (emphasis mine).

Upshur's hypothesis presented by the learning curves explain the value of formal teaching and informal exposure and use. This was borne out by Carroll's (1967) study which showed a strong relationship between time spent in the host country (hence informal exposure and use) and test performance.

The last study that will be considered here is that by Saegert et al (1974) of Arabic speakers on EFL courses in Arab and Lebanese universities. The results are given below:

(1) There is no correlation between EFL formal learning and English proficiency, hence "proficiency cannot be assessed purely on the basis of the number of years of EFL training" (p.103)

(2) A better predictor of English proficiency was whether or not the students had experience with a foreign language as a medium instruction. The conclusion therefore is that "exposure to a foreign language used as a medium of instruction may result in improved FL proficiency, even when the medium is not the same as the target language" (e.g. French as medium rather than English). This observation was made on the basis of high correlation coefficients between English proficiency and exposure to a foreign medium of instruction.

Arab sample γ pb (112) = .374, $p < .01$

Lebanese sample γ pb (66) = .358, $p < .01$

2.8. Conclusions

The discussion above shows how the interplay of theory and research contributes to the development of a growing field of investigation. The impetus for research could come from some formulated theories, as in the case of the nativist theory applied to the acquisition of an L2, or the continuum hypothesis applied to Interlanguage. On the other hand, research could unveil many theoretical issues, e.g. the morpheme studies lead to the speculation that the creative construction process is also possible for adults, a claim counter to theories held so far that adults have no access to the acquisitional process after the critical age at puberty. In methodology too, theories of development in language acquisition led to the use of rank orders and correlation analysis. In the same way theories of gradual change of the Wave model type led to the use of implicational analysis to support the theory and to display the data. Finding the order of acquisition, it is hoped, will lead to theoretical explanations why category A is acquired before category B. In other words, the search for explanations of the 'order' should be advanced in SLA for explanatory adequacy in IL theories.

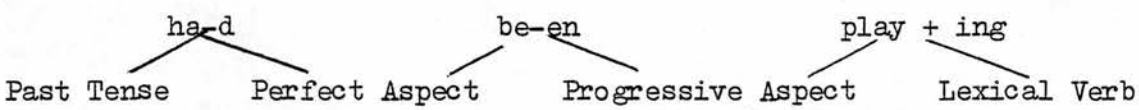
CHAPTER 3

Discussions on the Structures Investigated and the Aims of the Present Study

3.1. Tense and Aspect

Tense and aspect in English can be viewed in its entirety as a four-level interaction between semantic and syntactic functions, syntactic order, and morphological forms. This view gives a rich interpretation of descriptions of the acquisition of tense and aspect which is not found in studies concerned only with low-level morphological inflections (Section 2.2.2. above). The second reason for such a view rests on the notion of language as a system of interlocking systems governed by regular rules.

The relationship between morphology, syntax and semantics for the realization of tense and aspect can be exemplified in the diagram below:



The above shows the interrelationship between tense, aspect and lexical verb in a past perfect progressive construction. Each addition of tense and aspect add subtle semantic meanings. Allerton (1979) believes that "the more delicate our subclassification becomes the closer it correlates with semantic distinctions" (p.249). Discussions on the interrelationships in tense and aspect will be dealt with in Chapter 7. In the Table below, the morphological and semantic categories which constitute characteristics of the six tense and aspect categories in the study are given, then a discussion of the syntactic and semantic functions of each category will be presented.

TABLE 3 Characteristics of the Tense and Aspect Grammatical Categories

Category	1 Morphological form	2 Phonological variants	3 Syntactic placement	4 Aux. clas	5 Aux. variants	6 Syntactic functions		7 Semantic functions
						Morp.	Aux.	
1. Simple Pres.			Post-verbal as suffixes	Do	-	Relates Tense/Aspect to the main verb	Operators in Y/N, WH-Q, Negation	Discussed in the sections
2. 3rd Sing.Pres.	-s	s(Vcless Sibilant) z(Vd.Sibilant) iz (Vd.Sibilant)		Do	Does			
3. Simple Past	-ed	id/d/t c & Vw Change		Do	Did			
4. Prog.	-ing	ir		Be	am, was is, were are			
5. Perfect	-en	in/id/d/t c &Vw Change		Have	has had			

3.1.1. Characteristics of Tense

Lyons (1977) has stressed that tense is essentially a deictic category based on the distinction between past and non-past in English and it "grammaticalises the relationship which holds between the time of the situation that is being described and the temporal zero-points of the deictic context". Semantically, tense is a category of the sentence and not an inflectional category of the verb, though in English and many other languages morphological inflections do play an important part, e.g.

1(a) English : He washed the car yesterday

(b) Hindi : kal usne gari dhoy-ii
yesterday he car wash-ed

(c) Khasi : u la sait ia ka kali minhinnin
he past wash to the car yesterday

In the last sentence the past marker is a free morpheme, not an inflectional morpheme of the verb (sait) which remains uninflected in Khasi.

Deictic adverbs or particles of time such as 'yesterday', 'kal', 'minhinnin' in sentences 1(a) (b) and (c) above further indicate that tensed propositions such as the above are time-bound and contain reference to some point or period of time identified in terms of the zero-point of the utterance. Thus, if t_o is the zero-point of the utterance, propositions are either prior or posterior t_o

Past $\overset{t+}{\text{———————}}$ t_o ——————— $^{t+}$Future

sentences (a) - (c) above make deictic references to the time prior t_o (past). These references are signalled by deictic adverbs of time, and bound (1(a) and (b)) and free (1(c)) morphemes which mark past time.

3.1.1.1. Semantic Notions and Functions of the Non-past/present Tense in English

(1) It expresses timeless and temporal propositions subclassified into (a) general truths (gnomic propositions), e.g. 'It never rains but it pours', (b) generic truths, e.g. 'Cows are herbivorous'

(2) It expresses habitual time statements, particularly associated with dynamic verbs, e.g. 'Everyday Pam goes to school'

(3) It expresses an event simultaneous with the present moment, and normally occurs in certain easily defined contexts, e.g. in commentaries and demonstrations. The simultaneity is subjective; the event may not take place exactly at the time it is mentioned.

Leech (1971) considers the instantaneous or the actual present as the 'marked' or abnormal alternative to the progressive present, because "there are few circumstances in which it is reasonable to regard an action as begun and completed at the very moment of speech" (p.3). Jesperson is of the opinion that the present tense as having "little practical value because 'now' means a time with appreciable duration", i.e. any conceivable action cannot fall within the theoretical zero-point of the actual present. Zandvoort (1957) too believes that "in English the simple actual present is limited to those cases that do not require the progressive" (p.59).

(4) It is used in references to the past "past happenings are portrayed or imagined as if they were going on at the present time" by the use of the historic present (Leech 1971:6). The historic or the dramatic present is restricted to connected narratives or highly-coloured popular styles of oral narrative.

(5) Lastly, the present may be used in speaking of some future time, generally with specific reference to time, e.g. 'I start work again on Monday'.

3.1.1.2. 3rd Person Singular Present Tense

The 3rd person singular in the present tense has practically no semantic function; it has only a syntactic function which is to mark concord, i.e. as a marker of 3rd person subject in the present tense. It is therefore a very restricted category and the -s morpheme addition is a low-level rule.

3.1.1.3. Semantic Notions and Functions of the Simple Past

(1) In the words of Quirk et al (1972) the simple past is used "to denote definite past time". This specific time in the past is characteristically specified by an adverb of time

(2) It is used to refer to the happening/ activity/event that took place before the present moment, i.e. the present moment is excluded. In contrast to (1), no specific time reference is made

(3) It is used to report a present tense in indirect speech

(4) It is used to convey iterative meaning in past habitual.

3.1.2. Characteristics of Aspect

The secondary frame of temporal reference - aspect - is a non-deictic category and is concerned with "distinctions as extension in time vs instantaneity, completion vs non-completion, and iteration vs non-iteration" (Lyons 1977: Aspectual distinctions are grammaticalised in language, and like tense, can be realized morphologically in free and bound morphemes in English, Hindi and many other languages, e.g.

2(a) English : I'm reading a book

(b) Hindi : mai kitāb par rahā hũ (raha : Singular, Masculine)
I book read Prog. Aux 1st Person

(c) Khasi : nga dang pule kot
I Prog. read book

Within the tense:aspect distinction, Lyons is of the opinion that aspect is more common in languages and that ontologically it is more basic than tense, therefore children whose native language has both, come to master the former more quickly than they do the latter (p.705).

There are some restrictions on aspectual use which reflect other characteristics of the English verb, e.g. aspect and character of the verb are interdependent (since they both rest upon the same ontological distinction) stative verbs cannot generally be combined with progressive aspect. Thus only dynamic verbs describing events or processes, acts and activities, can be used with the progressive aspect. There is also restriction in the use of the present perfect, which "indicates the continuing present relevance of a past situation" (Comrie 1975:52), and expresses the relation between two time-points "the time of the state resulting from a

prior situation, and ... the time of that prior situation". This definition of the perfect therefore rules out the specific usage of time adverbs such as 'yesterday', 'last week' etc. with the perfect. According to Comrie, this restriction in English "does provide a useful heuristic device for identifying the Perfect in that language" (p.55).

3.1.2.1. Semantic Notion of the Progressive Aspect in English

(1) It distinguishes between progressive and non-progressive meanings. This distinction is important because it generally restricts the uses of the progressive to mutually exclusive contexts, i.e. one cannot be used for the other

(2) It defines the non-stative meaning of dynamic verbs and excludes stative verbs from its uses

(3) It defines the continuous nature of actions, events and processes and excludes perfective (when actions etc. are viewed as a complete whole from outside). In the progressive aspect "dynamic situations are viewed in progress from within" (Comrie 1975:52)

(4) It "refers to a future happening anticipated in the present. It's basic meaning is fixed arrangement, plan, or programme" (Quirk et al:88)

3.1.2.2. Semantic Notions of the Perfect Aspect in English

(1) It indicates the continuing present relevance of a past situation, e.g. Perfect of result: 'She has had a baby, therefore she is very weak'

(2) It expresses the relation between two time-points. Since it can partake of both the present and the past, the perfect has a dual role as in:
   (a) Present perfect, which expresses a relation between a present state and past situations
   (b) Past perfect, which expresses a relation between a past state and an even earlier situation.

   In this sense the perfect tells us nothing directly about the situation in itself, but rather relates some state to a preceding situation

(3) The experiential perfect (also 'indefinite', 'existential') indicates that a given situation has held at least once during some time in the past leading up to the present, e.g. 'He has been to Delhi before'

(4) The perfect or persistent situation describes a situation which has started in the past but continues into the present. In English, the situation referred to is both past and present, e.g. 'We have lived in Shillong for ten years'

(5) Perfect of recent past indicates that the present relevance of the past situation referred to is simply one of temporal closeness, i.e. the past situation is very recent, e.g. 'I've recently met your friend'

3.1.2.3. Combination of Aspectual Categories

Progressive and perfect aspects can combine as in the English perfect progressive, e.g. 'I've been talking to him for more than an hour'. Such combinations extend in range of meanings to those related to the present perfect (persistent, experiencial situations which began an hour ago but is related to a present situation).

Examples such as these show that fine semantic notions present in the progressive and perfect aspect combines with tense in interrelated systems of tense and aspect. Secondly, such examples again stress the importance of semantics in tense and aspect descriptions.

3.1.3. Tense and Aspect in Hindi

Tense and aspect in Hindi are realized by morphological inflections of the main verb (stem) and the various forms of the verb 'to be' hõnā which functions as an auxiliary verb. The present participle -tā (which changes to -tī, -tē for femine and plural respectively) is suffixed to the root verb to form two categories:

TABLE 4A Grammatical Categories with Participle -ta

		Stem	Pres.Part				
(a)	Sim.Pres. Pres.Imperf.	reh+	tā (-tī, -tē)	e.g. H1.	mai	rehtā	hũ
					I	live	Aux.
(b)	Past.Imperf.	reh+	tā (-tī, -tē)	e.g. H2.	mai	rehtā	thā (-thī, -thē)
					I	used	to live

The past participle -a (which changes to -i, -e for femine and plural respectively) is suffixed to the root verb to form the following tense and aspect categories:

TABLE 4B Grammatical Categories with Participle -a

				=
(c)	Sim.Past.	reh + ā (-i, -ē)	e.g. H3.	mai vehā rehā (I lived there) I there lived
(d)	Pres.Perf.	reh + ā (-i, -ē)	e.g. H4.	mai rehā hũ̃ (I have lived) I lived Aux. (Pres)
(e)	Pluperf.	reh + ā (-i, -ē)	e.g. H5.	mai rehā thā (I had lived) I lived Aux. (Past)

Note that the difference between (a) and (b) is in the Auxs. hũ̃ and thā; similarly, in the 'past' categories (c) - (e) the difference is only in the Auxs. hũ̃ and tha in (d) and (e) and the absence of an Aux. in (c).

The present progressive in Hindi is made up of three parts: (i) the stem of the verb, (ii) the perfect form of the verb rehnā (to stay/live) which has the masculine sing. rehā and is inflected for number and gender like the imperfect; i.e. rehā, rehē, rehī. Used in the progressive the verb rehnā is simply an Aux. imparting a progressive meaning to the construction, (iii) the simple present of the verb hōnā 'to be' (with its usual inflection), i.e. hũ̃ (1st Per.Sing.), hai (1st Per.Plu.), hō (2nd Per.Sing.), hō (2nd Per.Plu), hai (3rd Per.Sing.) hai (3rd Per.Plu.).

The past progressive has the same forms for (i) which is the verb stem, (ii) which are the inflected forms of the verb rehnā. However, in (iii) the verb 'to be' changes to the past forms thā (Sing.M), thī (Sing.F.), thē (Plu.M.), and thī (Plu.F.). The inflections for the singular and plural forms are given below.

TABLE 4C Progressive Aspect (Singular) in Hindi

	Subj.	Stem	Prog.M/Prog.F.	Aux.Pres/Past.M/Past.F
H6. 1st Per.	mai	jā	rehā/rehi	hū / thā / thi
	I	go	ing	am / was
H7. 2nd Per.	tum	jā	rehā/rehi	hō / thā / thi
	You	go	ing	are / was
H8. 3rd Per.	voh	jā	rehā/rehi	hai / thā / thi
	He/she	go	ing	is / was

TABLE 4D Progressive Aspect (Plural) in Hindi

	Subj.	Stem	Prog.M/Prog.F.	Aux.Pres/Past.M/Past.F
H9. 1st Per.	hum	jā	rehē/rehī	hai / thē / thi
	we	go	ing	are / were
H10.2nd Per.	tum	jā	rehē/rehī	ho / thē / thi
	you(p)	go	ing	are / were
H11.3rd Per.	ve	jā	rehē/rehī	hai / thē / thī
	they	go	ing	are / were

3.1.3.1. Semantic Notions in Tense and Aspect in Hindi

The present imperfect or simple present has a habitual meaning, e.g. nita roz sikhti hai (Everyday Nita learns). Similarly, the past imperfect indicates the usual state of affairs in the past, e.g. mai roz skul kar se jata tha (Everyday I used to go to school by car). In narratives, the past tense marker is usually dropped when the context is established, e.g. rita sat baje skul se nikalti thi. ghar a kar kapre badalti. phir khelne chali jati (Rita used to leave school at three. Arriving home, she used to change her clothes. Then she used to go and play).

"The present and past continuous express an event or action in progress at the moment of speaking and with reference to some point of time in the past respectively" (Kachru 1980:131). Thus the present and past continuous in Hindi correspond to the English forms 'am going', 'is reading', 'was running', 'were going' etc. Like the English present continuous, Hindi uses this aspect to indicate the future too, e.g. veh kal dilli jā rahā hai (He is going to Delhi tomorrow).

Lastly, the present and past perfect indicate completed action or process. The simple present equates with the English

forms ('has gone' etc) because it indicates a state resulting from completion of the act or the process which has present relevance. Similarly, the past perfect corresponds to the English past perfect which indicates the completion in the past with no relevance of the act or process to the present. However, the past perfect is also used in Hindi where English will use just the simple past tense, e.g. mai kal dilli geyā thā (I went to Delhi yesterday) kya ap kal dilli gayē thē? (Did you go to Delhi yesterday?)

3.1.4. Tense and Aspect in Khasi

In Khasi the main verb is never inflected; tense and aspect are expressed by the use of free morphemes or simply by deictic adverbs of time. Many instances show the overlap between tense and aspect, i.e. the same constructions occur for both. Thus, for the simple past, the present perfect and the past perfect in English, the same past participle 'la' is used.

K1. nga la lap ya ka kot kaba nga (la) ja? minhinnin
I Pst. find to the book which I (Pst) lose yesterday

K2. nga la trei shitom himrei kam mintoi
I (Pst) work hard but it no use

The present and past progressive are formed by putting the free morpheme dang before the verb, e.g.

K3. Pres.Prog: phi hilla haba nga dang pule kot
you shout while I Prog. read book

K4. Pst.Prog: u dang mare? ha ka por ba u (la) hāp
He Prog. run at the time that he (Pst.) fall down

Generally, however, the morphemes to denote past or progressive are deleted since the contextual clues and the deitic

adverbs of time are considered sufficient to denote tense or aspect. Hence in the above, the morpheme la is optional. Similarly in a context that requires an obligatory progressive in English, the simple verb form can be used in Khasi:

K5. Q. phi le? ayiu?
you do what?

K6. A. nga bam ja
I eat rice

OR

K7. nga dang bam ja (I'm eating rice)
I Prog. eat rice

Lastly, Khasi does not have inflections or other markers in the verb for Person, Number or Gender, e.g.

K8. nga/me /u hikai
I/you /he teach

K9. ngi/me baro? /ki hikai
We /you all /they teach

3.2. Negation

3.2.1. Negation in English

Negation in English is basically pre-verbal; negative sentences are formed by placing the negative participle ('not', or the contracted form 'n't') before the verb and after the auxiliary in F-MV, modal, progressive and perfect constructions:

	PRESENT	PAST	VERB
3.F-MV :	He does not (doesn't)	/did not (didn't)	like it
4. Modal:	He cannot (can't)	/could not (couldn't)	come
5. Prog.:	He is not (isn't)	/was not (wasn't)	coming
6. Perf.:	He has not (hasn't)	/had not (hadn't)	come

In the F-MV sentences (3) 'do' is inserted as tense carrier in the absence of an aux. Thus there is a regularisation of the syntactic rule above.

In copular sentences however the Neg. element is after the copula Be:

	PRESENT	PAST	
7. Pre-Nom	: He is not (isn't)	/was not (wasn't)	a student
8. Pre-Adj	: I am not	/was not (wasn't)	a good swimmer
9. Pre-Loc	: They are not (aren't)	/were not (weren't)	at home

3.2.1.1. Semantic Notions and Functions of Negation

Jesperson noted that "the chief use of a negative sentence is to contradict and to point a contrast" (Jesperson 1917:4). This corresponds to the well-known distinction between contradictory opposition (when one member is true and the other false), and contrary opposition (when neither contrary may be true although both cannot be true).

Another distinction is that between propositional and modal negations: the former involves the negation of the predicate or the complement and the latter is the negation of the modal operator or the negation of the performative verb. This is exemplified in the following sentences:

10. Prop.Neg.: I promise not/to see him again
11. Mod.Neg. : I don't promise/to see him again

In sentence 10 the whole proposition to the right of 'not' is negated. In sentence 11 the speaker denies that he is making a promise or he explicitly refuses to make one.

Kempson (1975) distinguishes between constituent (Jesperson's 'special'), and sentential (Jesperson's 'nexal') negations. Like the propositional: modal distinction, constituent and sentential negations are useful to identify the scope of the Neg.element: in the former the Neg.element is attached to a single word, while in the latter it operates on full sentences, as in:

12. Cons.Neg.: Not many of us like the new manager
13. Sent.Neg.: Many of us don't like the new manager

In sentence 12 the scope of negation is confined to the single word 'many' immediately after 'not' so that the sentence can be interpreted as:

14. (Very) few of us like the new manager

Sentential negation on the other hand operates on the full sentence.

In the field of language acquisition, Brown (1973:17) has identified four kinds of negations: (i) non-existence (absence or disappearance), (ii) rejection, (iii) refusal to comply, (iv) denial. Lyons is of the opinion that the last three can be accounted for in terms of assent and dissent, acceptance and rejection, rather than in terms of truth and falsehood. Thus a typical child's sentence like

15. I won't eat carrots

equates with "I reject carrots", "I refuse to take carrots" etc. Since "won't" negates the performative verb 'eat', it is a modal negation. Lyons believes that modal negation is basic, i.e. "Acquired earlier by children and serving as a basis for further development" (Lyons 1978:777). Like rejection and refusal, denial too is considered to be a fundamental use of negation. In the words of Horn (1978:180) "the function of negation is to deny a proposition or claim, or to substitute an inverse act for the one under consideration". There is flat denial in a typical child's sentence like:

16. I didn't take it

The point is not the truth or falsity of the child having eaten the sweets, but his denial/rejection/refusal of the accusation or proposition.

3.2.2. Negation in Hindi

Negation in Hindi is basically pre-verbal in all types of sentences: the Neg.element nahī is placed between the subject (or object if the sentence has one) and the verb phrase in F-MV, modal, progressive and perfect sentences, as in the following sentences:

H12. F-MV : veh kitāb nahī partā (hai)
he book not read (Aux)
(he doesn't read a book)

H13. Mod. : veh kitāb nahī par sakta (hai)
he book not read can (Aux)
(he cannot read a book)

H14. Prog. : veh kitāb nahī par rehā hai
he book not read ing Aux
(he is not reading a book)

H15. Perf. : veh kitāb nahī parha hai
he book not read(P) Aux
(he hasn't read a book)

In copular sentences too the Neg.element is pre-verbal since it occurs before the verb Be as in the following sentences:

H16. Pre-Nom : veh bachā nahī hai
he child not is
(he isn't a child)

H17. Pre-Adj : veh achā larka nahī hai
he good boy not is
(he isn't a good boy)

H18. Pre-Loc : veh ghar me nahī hai
he home in not is
(he isn't at home)

These constructions are regular in that the verb phrase or the copula Be occur at the end of the sentence, in accordance with the basic word order in Hindi which is SOV. Regularity is also seen in the positioning of the Neg.element immediately before the verb or the verb phrase. However, the Neg.particle can be shifted for stylistic or emphatic uses, as in:

H19. F-MV 2 : veh kitāb partā nahī hai
he book read not Aux
(he doesn't read a book)

H20. Mod.2 : veh kitāb par saktā hai nahī
he book read can Aux not
(he cannot read a book)

In H19 the insertion of 'Neg' within a verb phrase 'parta hai' puts Neg. in a post-verbal, pre-Aux. position. It can also occupy a sentence final position as in H20. Both positions are marked vis-a-vis the normal position which is pre-verbal.

Other Neg.particles - mat, na - will not be considered except for an example of the shifting of the Neg.element 'mat' in sentences like

H21. Imper.1 : kitāb mat parho (Don't read a book)
book don't read

H22. Imper.2 ; kitāb parho mat (Don't read a book)
book read don't

which again shows the flexibility of the Neg.element in Hindi.

Kachru (1980) observed that the scope of negation in Hindi is normally the entire predicate, e.g. for sentences H12 to H20 above, the negated predicate is expressed as "It is not the case that ...". However, there are specific contexts where the scope of negation is restricted to some particular constituent, which is the focus of the sentence as in:

H23. rāji dilli nahī gai (bambai gai)
Raji Delhi not went (Bombay went)
(Raji didn't go to Delhi, she went to Bombay)

Also when there is an adverbial in the sentence, it attracts the negation as in:

H24. raja katẽ se nahī khatā
Raja fork with not eats
(Raja does not eat with a fork)

Though the neg.nahi is immediately before a verb, it negates the phrase 'katẽ se' (with a fork) and not the verb 'khatā' (eat).

The above sentences are only two examples of possible constituent negations in Hindi.

3.2.3. Negation in Khasi

Negation in Khasi is expressed by the Neg.particles 'ym', 'khelem' and a contracted form of 'ym', i.e. -m which is suffixed to pronoun gender markers such as u (he), ka (she), ki (they) etc. The bound morpheme -m is used in present and future constructions:

K10a. Sim.Pres. : um di? dud minta
and Pres.Past : he not drink milk now
(he doesn't drink/isn't drinking milk now)

K11a. Hab.Pres. : um ju di? dud minstep
and Hab.Past : he not Hab. drink milk morning
(he doesn't drink/never drank milk in the morning)

K12a. Future : um wan lashai
he not come tomorrow
(he isn't coming/will not come tomorrow)

K13a. Pres.Perf. : um pat di? dud hadu? minta
he not yet drink milk till now
(he hasn't drunk the milk till now)

K14a. Modal : um nang pule
he not can read
(he cannot read)

The Neg.particle 'khelem' is used as a free morpheme usually in past constructions:

K10b. Sim.Past : u khelem di? dud minhinnin
he not drink milk yesterday
(he didn't drink the milk yesterday)

K13b. Past.Perf. :

u khelem pat di? dud ha ka por banga la poi
he not yet drink milk at the time that I Pst. reach
(he hadn't yet drunk the milk when I reached)

K14b. Mod.Past : u khelem nang pule minhinnin
he not can read yesterday
(he couldn't read yesterday)

Sentences expressing the future like K12a above can also make use of explicit future marker -n in which case a free Neg. particle 'ym' is used instead of the contracted and bound morpheme -m, as in:

K12b. Future : un ym wan lashɛli
he Fut. not come tomorrow
(he will not come tomorrow)

Two points can be noted here: (i) negative sentences in the present or past progressive aspect are ungrammatical in Khasi:

K15a. Pres.Prog. : um dang le?kai minta
he not Prog. play now
(he isn't playing now)

K15b. Past Prog. : u khelem dang le?kai minhinnin
he not Prog. play yesterday
(he wasn't playing yesterday)

hence the simple present or past substitute for the present or past progressive, the context giving the clue as to ongoing incompleted action. Progressive aspect in Khasi is therefore associated mainly with positive sentences. (ii) while whole phrases (NPs or VPs) can interchange places, the Neg.elements cannot be shifted to post-verbal positions, as the following:

K16a. um dei u khinna? uba bha
he not is he child he who good
(he isn't a good boy)

K16b. u khinna? uba bha (te) um dei
he child he who good (emphasis) he not is
(good boy he isn't)

*K16c. u khinna? uba bha dei um
he child he who good is he not

The normal position of the three Neg.particles in sentences K10a to K12b show that negation is signalled quite early in the sentence, immediately after the identification of the subject and before the verb phrase; this also precludes sentence final negation (K16c).

Two other Neg.operators in Khasi : em (No) and 'wat' (Imperative Don't) are not discussed here as these are outside the scope of this study.

3.2.4. Negation in Bengali

Singh (1976) is of the opinion that negation in Bengali is essentially post-verbal (V.Neg.) both at the deep and surface levels, and that Bengali sentences with a V-Neg.word order remains fixed since the Neg.element cannot be shifted even for stylistic or emphatic reasons. Tan Wen (1979) explains this as the result of a fixed position of the categories within the constituent: since the Neg.element is posited to be an integral part of the verb constituent, it does not permit Neg.-V sequence in simple sentences. However, in a complex sentence expressing condition, possibility or doubt the Neg.particle comes before the verb in dependent clause and in some cases, in the principal clause; as in

B1. ʷse nā jāy nā jābē (He may not go if he does not like)
he not like not go

For the purpose of this study, we will be concerned only with post-verbal negation in sentences like:

B2a. F-MV : ʷsē jānē nā (He does not know)
he know not

B2b. F-MV : ʷsē nā jānē
he not know

B3a. Modal : sitā jābe na (Sita will not go)
sita go will not

B3b. Modal : sitā nā jābe
sita not go will

B4a. Prog. : se jatshe nā (He is not going)
he go ing not

B4b. Prog. : se nā jatshe
he not going

B5a. Perf. : rām chithi lekhe ni
ram letter write has not
(Ram has/had not written a letter)

B5b. Perf. : rām chithi ni likhe
ram letter not write has

In the sentence above the Neg.element ni is in complementary distribution with na. Other Neg.particles like nas, noe, nei are also available in some constructions, as in the copular sentences below:

B6a. Pre-Nom. : rām bokā nas (Ram isn't a fool)
ram fool not

B7a. Pre-Adj. : rāstā lomba noe (The road isn't long)
road long not

B8a. Pre-Loc. : rām bāri te nei (Ram isn't at home)
ram home in not

The different distributions of the various Neg.particles will not be discussed here as this has no bearing on the study.

3.3. Interrogation

3.3.1.1. Y/N questions in English

Interrogative structures make use of intonational and other devices like question particles, question words, tags, word order, inversion etc. Rising intonation is commonly associated with

Y/N questions with or without subject or object inversion or interrogative particles. In English, Y/N questions have both subject-verb inversions and rising intonation. Since the whole proposition is being questioned in Y/N questions and since the finite verb is "the core of the simple sentence" (Ultan 1978:223) the verb is fronted to the emphatic sentence initial position. In English and other languages with periphrastic constructions the Aux. occupies the verb slot of the inverted constituent order and precedes the main or non-finite verb. Where there is no Aux. in F-MV sentences, a dummy Aux. 'Do' is inserted and fronted as in the other sentences. Thus the sentence initial Aux. has a syntactic function as a question introducer, and a morphological function as a tense carrier as can be seen in the following sentences:

		Present / Past	Sub.	Verb	X	Declarative
17.	F-MV :	Does / Did	he	like	her?	He likes/liked her
18.	Modal :	Can / Could	he	come?		He can/could come (today/yesterday)
19.	Prog. :	Is / Was	he	going	alone?	He is/was going alone
20.	Perf. :	Has / Had	he	taken	it?	He has/had taken it

In language typology, it has been observed that inversion in Y/N questions is an uncommon interrogative device, since only 7 languages (6 of them European languages) out of 38 make use of this form of interrogation. Thus inverted Y/N questions are more 'marked' than non-inverted Y/N questions. Secondly, since English makes use of both prosodic and syntactic devices to mark Y/N questions, it can be said that one of them is a redundant feature. These points will be noted again in the discussions on the non-acquisition of inversion by learners of English, in Chapter 7.

3.3.1.2. Information Questions in English

Another type of interrogative structures are information questions (usually referred to as Wh-questions in English) which elicits information on a particular word, either a subject or object pronoun or adverb. Question words are interrogative substitutes for nouns and a number of adverb-like words or phrases

expressing locative, temporal, manner, purpose and such other functions. These question words focus interrogatively on particular referents within a sentence. As in Y/N questions, the emphatic nature of sentence initial position attracts the question word to this position; in the words of Ultan (1978:222) "The resultant inversion is particularly striking for virtually all languages when the question word is the object of the verb, since object is initial position is not a favoured declarative type for most languages". Such inversion also known as 'fronting' of the question word in the T.G. School is common among 74% of 46 non-SOV, and 56% of 21 SOV languages. A second inversion in Wh-Qs in English, which is the inversion of the finite Aux. and the subject is less common. Labov and Labov (1978:5) observe that this is a redundant feature in terms of meaning. To cite an example:

21a. Decl. sentence : He is living <u>in Shillong</u> (questioned item)
=> Where

21b. 1st. inversion : Where he is living?

21c. 2nd. inversion : Where is he living?

It has been noted by Labov and Labov that sentences like 21b. and 21c. above have the same meaning; in both questions the more important question word 'where' substituting for the questioned item, has been inverted to the emphatic initial position. The finite and subject inversion is therefore redundant and subjected to late or non-acquisition by learners.

3.3.1.3.<u>Semantic Notions and Functions of Interrogative Sentences, in English</u>

Jesperson (1933:305) has analysed Wh-questions (Wh-Q) as x-questions where x is an 'unknown quality' whose linguistic expression is an interrogative pronoun or a pronominal adverb (when, where etc.). According to Katz (1972:204) indefinite pronouns (someone) and adverbs (somewhere, somehow etc.) combine with an interrogative morpheme to become interrogative elements and their function is to be used in x-questions. Lyons (1978:757) is of the opinion that both Y/N and Wh-Questions contain an 'unknown quality' or a variable which has to be given a value by the addressee.

In Y/N questions there are two values: the positive and the negative propositions, e.g.

22a. Is the boy hurt (or not)?

22b. Is the boy not hurt (or is he)?

to which the reply is usually an assent or dissent (Yes or No). The negative proposition in 22a. and the positive one in 22b. can be overtly stated or implied.

In Wh-Questions there are many values for x, e.g. for the question

23. 'Who got hurt?'

there are infinite possibilities; John/Bill/Mary/SOMEONE/MANY PEOPLE ... got hurt. SOMEONE and MANY PEOPLE are less specific than the proper nouns, hence they are indefinite pronoun and adverb. Since any one of the possibilities can be inserted in the slot occupied by 'Who' in 23 above, it is clear that Wh-Questions have a fill-in-the-blank feature.

Lyons has also observed that most Indo-European languages have interrogative pronouns (Who) and adverbs (Where) which are related etymologically to indefinite pronouns (Someone) and adverbs (Somewhere). This is brought out in the following examples:

24a. Interr.Pron. : Who mugged her last week?

24b. Rel.Indef.Pron. : He is a man who mugged her last week

24c. Indef.Pron. : SOMEONE mugged her last week or
She was mugged by SOMEONE
(The underlying propositions of 22a. and b.)

The sentences above show a common semantic property which is the indefinite identity of the person who mugged the girl. According to Lyons, these various morphological relationships depend upon the grammaticalization of the common semantic property in the corresponding question and statements.

Two other points can be drawn from the above examples: (i) that questions usually have definite presuppositions (Aqvist 1975:58), (ii) that questions have a basic use as information-

seekers. Thus for 22a. above if the reply is 'yes', the information that one gets is that the boy is hurt. To question 24a. above, the reply may be indefinite and vague 'SOMEONE mugged her' or it may be specific 'John Crook mugged her'. Seeking information through questions also presupposes that the speaker does not have the information. Questions can also be used to confirm a doubt, e.g. 'Did he really mug her?' 'Am I doing it right?' 'He is married, isn't he?' etc. Questions which are 'deliberative' express or externalize a doubt: 'Will it rain, I wonder?' 'Is the way or is it the next one?' The necessity to obtain advice through questions is seen in questions like 'Shall I go to college?' 'Shall I vote Congress (or Janata)?' Some semanticists have analysed questions as mands in the following senses: requests ('Would you like to lead in the discussion?' 'Is that the salt?'); commands ('Will you close the window?') etc.

The above are some of the primary uses of questions; however in this study we will be concerned mainly with the use of questions as linguistic device to elicit information.

3.3.2. Interrogation in Hindi

3.3.2.1. Y/N Questions in Hindi

There are two alternatives for the formation of Y/N questions in Hindi: (i) the use of a question particle 'kyā' (literally 'what') before the sentence, (ii) the use of rising intonation only. These are exemplified in the sentences below:

H25a. kyā batchā gayā thā? (Did the child go?)
Q. child went AUX. (Past)

H25b. batchā gayā?
child went?

H26a. kyā āp gaye the? (Did you go?)
Q. you went AUX. (Past)

H26b. āp gaye the?
you went AUX. (Past)

The question marker 'kyā' can be shifted to sentence final position in peotic and other rhetorical use, as in

H25c. batchā gayā thā kyā?
child went Aux. Q

H26c. āp gaye the kya?
you went Aux. Q

3.3.2.2. Information Questions in Hindi

Information questions in Hindi make use of a number of question words which may be sentence initial (H27a. below) if there is no subject, object, adverb which then occupies the sentence initial positions, as in sentences H28a. to H31a. below:

H27a. kaun rō rehi hai? (Who is crying?)
who cry ing Aux. (Pres.?

H27b. rādhā rō rehi hai (Radha is crying)
radha cry ing Aux. (Pres.)

H28a. rājā kab aega? (When will Rāja come?)
raja when come will

H28b. rājā kal aega (Raja will come tomorrow)
raja tomorrow come will

H29a. rām ne kisko pita? (Who did Ram hit?)
ram Ag. who Dat hit

H29b. rām ne billi ko pita (Ram hit the cat)
ram Ag. cat Dat hit

H30a. rāni ko kitna rupija chahiye? (How much money does Rani want)
rani Dat how much rupees want

H30b. rāni ko čar rupija chahiye (Rani wants four rupees)
rani Dat four rupees want

H31a. hotāl kaha hai? (Where is the hotel?)
hotel where Aux. (Pres.)

H31b. hotāl rafi marg me hai (The hotel is in Rafi road)
hotel rafi road in Aux. (Pres.)

H32a. tum pilao keise banatī hō? (How do you make pilao?)
you pilao how make (Fem) Aux.

H32b. tum pilao acca banatī hō? (You make pilao well/good)
you pilao good make (Fem) Aux.

Notice that the question word is inserted in the exact position of the item being questioned, whether it is the subject, object, quantity, place, manner etc (Sentences H27b. - H32b. above). Generally the question word is before the verb phrase. However, the question word can be shifted to other positions in the sentence for stylistic and other rhetorical purposes. The different 'keise' in H32 above and other examples are shown below:

H32c. tum keise pilao banatī hō?
you how pilao make Aux.

H32d. keise pilao banatī hō tum?
how pilao make Aux. you

H32e. keise tum pilao banatī hō?
how you pilao make Aux.

H32f. tum pilao banatī hō keise?
you pilao make Aux. how

Besides question words, information questions in Hindi are also marked by rising intonation.

3.3.3. Interrogation in Khasi

3.3.3.1. Y/N Questions in Khasi

Khasi has neither question words nor inversion to mark Y/N interrogation, the declarative word order remaining unchanged and questions are signalled by rising intonation only, as in the following sentences:

INTERROGATIVE	DECLARATIVE
K17a. phin wan lashai?	K17b. phin wan lashai (1)
you-Fut.come tomorrow	you-Fut.come tomorrow
(Will you come tomorrow?)	(You'll come tomorrow)
K18a. u don habar?	K18b. u don habar
he is outside	he is outside
(Is he outside?)	(He is outside)
K19a. kan wan bad ka rida?	K19b. kan wan bad ka rida
she-Fut.come with she rida	she come with she rida
(Will she come with Rida?)	(She will come with Rida)
K20a. u bok u shoʔ ya ka para?	K20b. u bok u shoʔ ya ka para
he bok he hit to she sister	he bok he hit to she sister
(Did Bok hit his sister?)	(Bok hit his sister)

3.3.3.2. Information Questions in Khasi

In section 3.3.1 and 3.3.2 above we have noted that there is an attraction of the question word to the emphatic sentence initial position in the different types of natural languages, this however being less common in SOV languages. Khasi is the only language with both sentence initial and sentence final question words in information questions, both positions being equally favoured by native speakers of Khasi in sentences like:

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(1) The underlined words in K17b. - K20b. correspond to the Wh-question words in K21 - K24a. and b. in section 3.3.3.2 below.

Sentence final Q-word

K21a. phin wan lano?
you-Fut. come when
(When will you come?)

K22a. u don hangno?
he is where
(Where is he?)

K23a. kan wan badno?
she-Fut.come with whom
(With whom will she come?)

K24a. u ram u sho yano?
he ram he hit who
(Who(m) did Ram hit?)

Sentence initial Q-word

K21b. lano phin wan?
when you-Fut. come
(When will you come?)

K22b. hangno u don?
where he is
(Where is he?)

K23b. badno kan wan
with-whom she-Fut.come
(With whom will she come?)

K24b. yano u ram u sho
who he ram he hit
(Who(m) did Ram hit?)

However, since sentence final Q-words substitute for the underlined pronouns and adverbs in the declarative sentences K17b. to K20b. above, it is logical to posit that this is the normal position of Q-words in Khasi; the fronting of the Q-words to sentence initial positions (K21b. - K24b.) is necessary for emphasis on the Q-words. This is borne out by the less acceptable initial Q-words in normal speech in sentences like:

K25a. u long uba kumno?
he is he-who how?
(What kind(of man)is he?)

K26a. u long ayiu?
he is what
(What is he?)

K25b. uba kumno u long?
he-who how he is
(What kind(of man) is he?)

K26b. ayiu u long?
what he is
(What is he?)

While K25b. and K26b. above are acceptable in stylistic and rhetorical uses, sentences like these below are not accepted even in poetry or for any other uses:

K27a. u dei uei?
he is who
(Who is he?)

K27b. uei u dei?
who he is
(Who is he?)

In the above sentences two interrogative particles -no and -ei are suffixed to pronouns like u (he), Ka (she), ki (they) etc. and adverbs markers like la- (time), ha- (place), bad- (person). The Q-word 'ayiu' (what) is however used separately as an independent Q-word (K25a. and b.) above.

In Khasi, information question is also marked by rising intonation with stress on the Q-word.

3.4. Rationale for the Choice of the Structures

Many reasons led to the choice of tense and aspect for investigation in this study:

(i) the comparatively early exposure of most students to simple present and past, the present and past progressive and the perfect present and past. Yet it seems that the verb system remains one of the major areas of difficulty for students learning English, especially in NEM groups. There are problems of deciding what are aspectual and what are not aspectual in the present and past tenses, i.e. when to use simple past or the past perfect; when to use simple present or present progressive. The actual use of these grammatical categories exemplified by 3rd. person singular and simple past, will test the assumption that the semantic distinctions between the simple tenses and the aspectual categories are not clear-cut for most NEM learners. This will take us to the problem of the acquisition of form and/or function and the question of meaningful acquisition;

(ii) it is hoped that this study will uncover the relationship between methods of teaching and the acquisition of grammatical categories. It is to be noted here that the teaching of grammatical categories in most NEM schools is through definations ('A Noun is ...'), drilling and substitution tables, and translations from the Ll. It will be shown that these practices are inadequate for the meaningful acquisition of grammatical categories;

(iii) since the 3rd. singular and simple past are low-level, easily taught rules (Krashen 1981:114), they are amenable to monitoring. If it can be shown that monitoring takes place in a formal task, this will lend support to the view that at the learning stage grammar rules are not easily retrieved in more demanding tasks.

The learning of syntactic structures will be represented by negation and interrogation in this investigation. Syntactic structures are higher level aspects of language acquisition because they are concerned with the relationship between different lexemes in a sentence, as well as the relationship between syntax and morphology. The complexity of negative and interrogative sentences can be seen in the following points: (a) the selection and use of the correct Neg. or question particle or Q-word, (b) the insertion of Do in F-MV sentences, (c) working out tense/aspect agreement between the Aux. and the main verb, (d) observing word order rules in negative sentences - placing the Neg.element in the post-Aux., pre-verbal/adjectival/nominal/prepositional position and in interrogative sentences - the inversion of subject NP and the Aux. taking the place of the main verb (3.3.1 above).

Since negative and interrogative sentences reflect the strategies and processes of language acquisition in a way that morphological inflections cannot, they are appropriate for our comparative study between NEM and EM learners. We are interested to know if syntactic rules like Do-insertion and inversions are acquired by both NEM and EM groups. If such rules are not available to learners, what strategies do they adopt to get round the problem of negating and interrogating in English?

Another reason for the inclusion of negation and interrogation in our study is because these areas are well researched in L1 and L2 acquisition studies. As such, they give the opportunity to compare the findings of previous studies with those of the present one. Also, earlier longitudinal studies provide the framework into which our developmental sequence, derived in a cross-sectional study, can be fitted.

Lastly, comparisons can be made between Hindi and Khasi

speakers in their acquisition of syntactic structures (negation and interrogation), and between Hindi, Khasi and Bengali speakers in the syntax of negation. The question we want to ask is - How far does the L1 influence the word order rules in the acquisition of negation and interrogation in English? If the influence is minimal, does this indicate some universal processes in the acquisition of syntax?

The acquisition or non-acquisition of tense and aspect categories, negation and interrogation, will be related to two assumptions: (a) what is communicatively functional is at the basis of the acquisitional process, i.e. what is useful for communication is learned early and what is redundant or considered to be redundant is not learned, (b) the strategies used by learners are geared towards the communication of tense/aspect distinctions and the negative or interrogative meaning of a sentence.

3.5. Integration of the Literature into the Study

Many of the issues raised in Chapter 2 will be relevant to this study. Firstly, the interlanguage developmental continuum hypothesis will provide the framework for the study of developmental sequences of the structures under study. These sequences are not seen as linear, discrete rank-ordered structures as in the earlier morpheme studies, but as overlapping stages. The concept of development is attributed mainly to the innate, universal, psycho-linguo processes of language learning. These processes and strategies are related to the concept of a semantic, pragmatic and functional mode as the basis of language acquisition. Our approach is therefore ecletic, drawing from the nativist school as well as the functional models related to actual communication. The developmental sequences will be analysed by implicational scales (2.3. above).

Secondly, the variability paradigm explained by movement over time, will be complemented by models and theories related to synchronic variability as a function of task differences. Variable performance at any particular stage due to tasks will be shown by the use of analysis of variance (ANOVA) and scattergrams. ANOVA will also be used for distinguishing different groups divided

by differences in linguistic situations and differences in levels at school.

Thirdly, the work of Lois Bloom in L1 and of Wagner-Gough in L2, will provide a model for the study of the acquisition of form in relation to function in NEM and EM groups.

3.6. Hypotheses

Having stated the general aims in Chapter 1, discussed the theoretical background in Chapter 2, and presented the structures in the present chapter, we are now in a position when our aims should be more concretely formulated in the form of hypotheses. The hypotheses are divided into three groups: the set of hypotheses are grouped according to a common aspect of investigation. In Group I, the set of hypotheses are related to comparisons between the groups in different linguistic situations. Accuracy scores will be evaluated and will be used to place the subjects on different points on the continuum. Data showing qualitative differences and differences in error-types will be used to show the different strategies used by NEM and EM groups. It will also be shown that for most NEM learners, the acquisition of form does not correlate with the acquisition of function and vice versa. The set of hypotheses in Group II are related to the concept of developmental sequences in SLA. Hypothesis 2a will trace the developmental sequence of the different structures, and compare these sequences with those of other studies discussed in Chapter 2. Hypothesis 2b and c. are theoretical, since they relate to explanations of developmental sequences in terms of universal processes of language learning within a semantic and pragmatic framework. Group III hypotheses relate to the nature of the learners' system which is hypothesized to have these characteristics:

(a) it is a continuum of overlapping stages

(b) it is developmental and increases in complexity as a function of learning

(c) it is a system of variable rules. Variability comprises a diachronic dimension, i.e. variability due to rule changes as time (therefore learning) progresses. Variability is also synchronic, i.e. at any particular point in time rules change because of different

hypotheses being tested (by the learner), different degrees of control of, and access to, linguistic knowledge

(d) it is systematic in that rule changes are accounted for by linguistic and contextual constraints and (possibly) psycholinguistic factors like control and access

(e) it is a system of systems, i.e. it has a network of interrelated systems of semantics, syntax, morphology, morphophonemics etc.

The set of hypotheses in Groups I and III are testable hypotheses to be empirically verified, therefore both the null hypothesis which is to be tested and its alternative working hypothesis are presented. This also applies for Hypothesis 2a in Group II. Hypotheses 2b. and c. however are theoretical speculations which will be supported by unquantified data.

The sets of hypotheses in the three groups form the general hypotheses applicable to the four areas under investigation. Other hypotheses specific to each area will be formulated at the beginning of data analyses chapters (Chapter 5 for tense and aspect, Chapter 6 for negation, Y/N and Wh-questions).

GROUP I

The hypotheses in this group deal with the EM : NEM comparison.

HYPOTHESIS 1.1

H_o : There are no differences in the performance scores of the NEM (K), NEM (H) and EM groups

H_1 : There are significant differences in the performance scores of the NEM (K), NEM (H) and EM groups which are measured by ANOVA and the S-tests

HYPOTHESIS 1.2

H_o : There are no differences in the error-types and the use of different features of IL by NEM (K), NEM (H) and EM groups

H_1 : There are differences in the error-types and variants in the interlanguage of NEM (K), NEM (H) and EM groups as a result of different learning situations, different strategies used, and the different functions to which certain structures are being put to use

GROUP II

The second set of hypotheses deal with the sequences of development of tense and aspect categories, negation, Y/N and Wh-questions.

HYPOTHESIS 2.1

H_o : There are no sequences of development for tense and aspect, and the syntactic structure of negation, Y/N and Wh-questions

H_1 : There are sequences of development for each of the areas investigated which are represented by implicational scales

General Hypothesis 2.2

The sequence of development is based on the universal processes of language learning

General Hypothesis 2.3

The sequence of development can be best explained within a semantic and pragmatic framework

GROUP III

The set of hypotheses in this group relate to the nature of the interlanguage of learners.

HYPOTHESIS 3.1

H_o : The continuum of learners' L2 competence is not developmental; i.e. there are no significant differences between Classes 4, 7 and 10 in the NEM (K), NEM (H) and EM schools

H_1 : The continuum of learners' L2 competence is developmental and there are significant differences between Classes 4, 7 and 10 tested by ANOVA and S-tests

HYPOTHESIS 3.2

H_o : Learners of the nine different groups are not placed at different points in the continuum

H_1 : Learners of the nine different groups are placed at different points in the continuum in the implicational scales

HYPOTHESIS 3.3

H_o : Different tasks do not impose varying demands on the learners' unstable and dynamic system, therefore there is no synchronic variability

H_1 ; Different tasks necessitate varying degrees of access to, and control of, linguistic knowledge for the learners. It follows that there is synchronic and horizontal variability. Significant differences between tasks will be empirically tested by ANOVA and T-tests.

CHAPTER 4

Experimental Procedures

In this chapter the discussions will focus on the sample population, methods of elicitation of data, pilot testing, administration of the final tests, scoring methods and methods of analyses for the data used in this study.

4.1. Sample Population

The sample population is taken from two basic school types - the non-English and English medium. The former again represents the Hindi and Khasi schools. The size of the total population is 90 subjects altogether, 30 from each school.

The 90 subjects in this study have been taken on a random basis from three classes from each school: class 4 represents the lowest group in the scale and are at the beginners' level; class 7 represents the intermediate level just after a switch-over to English medium in both Hindi and Khasi schools; class 10 represents the end period of schooling. A two years' gap is considered appropriate since the rate of language learning is quite slow in most NEM schools. Also, though we say 'two' years, the effective teaching/learning time may be much less because of innumerable holidays and temporary closures (1) of schools. The age groups range from 9-10 years (class 4) through 12-13 years (class 7) to 15-16 years (class 10).

The division of the sample population is represented below:

		EM		NEM(H)		NEM(K)		Class Total
Class 4	=	10		10		10	=	30
7		10		10		10		30
10		10		10		10		30
School total		30	+	30	+	30	Grand total	90

(1) The data was taken between June-September 1982, one of the years during which 'strikes' or 'bandhs' were frequent for some reason or the other.

In the syntax of negation additional data from 30 Bengali students was taken to investigate L1 influence in syntactic structures.

The objective in the selection of the sample is to compare language acquisition in immersion and non-immersion types of situations. If similar types of developmental errors are found, then the acquisitional process is hypothesised to have a universal base. A second reason relates to a pedagogical interest of finding out the degree of differences in the EM:NEM distinction. Though some socio-economic and psychological variables (Agnihotri et al 1982) may be involved in the EM:NEM distinction, these are outside the scope of this study since time did not permit the collection of data on these variables. Thus the main variables considered are (i) the medium of instruction (EM or NEM), (ii) the level or class in school (4 or 7 or 10) and (iii) the types of tasks. The experimental design therefore is a mixture consisting of independent samples, based on variables (i) and (ii) above and a repeated measure design based on variable (iii), since each subject from a group, say H4 (Hindi class 4) or E7 (English class 7) etc. is tested under different task conditions.

4.2. Elicitation Methods

Since one of the hypotheses of this study relates to variability due to task differences, a number of elicitation methods have been used to obtain data from the respondents. A second consideration for using multiple elicitation tests is the consideration of observational and descriptive adequacy related to textual and intuitional data respectively (Corder 1971). Thirdly, as Lococo (1976) has remarked, a particular method reflects aspects of L2 acquisition not reflected by the other methods. Again, as Chao Shin (1979) has observed, different elicitation procedures may yield different diagnosis of the L2 learners' knowledge of the target language. Different tasks are after all different types of check lists on the situational variables, the degree of control or access to knowledge, learners' variables, and the effectiveness of the different tasks. The last mentioned, i.e. the advantages of a particular task over the others, is still a

controversial point; hence we opted for multiple tasks for each of the areas investigated. Lastly, because of practical problems, a strictly observational and longitudinal study of spontaneously produced speech has not been possible, hence a battery of tasks is considered necessary for a systematic and exhaustive study of the learners' IL system.

4.2.1. Elicitation Tasks for Tense and Aspect

The bulk of the data for tense and aspect grammatical categories has been obtained through the discrete-point, fill-in-the-blanks task. The task is highly structured; an uninflected verb is given to be inflected by suffixing -s (in a sentence requiring 3rd person singular present tense), -ing (for present or past progressive as required in the sentence), -ed (for past tense) etc. The format of the task is given in Appendix III.

Since all that is needed by way of production is morphological inflection, the task focusses on form and allows for monitoring. The assumption behind discrete-point tasks is the possibility of inferring the degree to which an individual has assimilated TL rules, by focussing on those aspects related to the rules. The fill-in-the-blanks task is also a very common classroom type exercise with which students are familiar. Secondly, since the whole sentence is given, the task is comparatively 'easy', suitable to NEM students and for the lower classes. Such a 'close-ended format' type of task has been used successfully by Agnihotri et al (1983) to elicit the use of certain functions in tense distinctions.

A second structured task to elicit simple past and 3rd singular is the multiple-choice task. Each sentence contains 7 options, one of which is the correct one. Since the objective is to only find out whether the learner can recognize a correct form from the options given, all types of learners' 'errors', which include forms like have +ing, Be + V etc. have not been included among the distractors. The distractors used are however fairly representative of learners' errors in tense and aspect, such as the confusion between simple past and past progressive. The distractors include (i) the uninflected verb, (ii) the present progressive,

(iii) the past progressive, (iv) the present perfect, (v) the past perfect, (vi) the 3rd person singular, (vii) the simple past.

The two tasks above are manipulated and structured; they are therefore removed from natural communicative contexts. Moreover, they do not reflect the true state of the learners' own productive rules. To overcome this difficulty a picture-description [2] task has been designed and used. The task consists of 20 pictures where a boy (named Ram for Hindi speakers, Don for Khasi speakers) is shown to perform different daily activities, from getting up in the morning until the time when he goes to sleep. To elicit 3rd singular, the frame "Everyday Ram/Don (verb) ..." and to elicit simple past, the sentence "Last Monday Ram/Don (verb) ..." were used. To familiarise the student with the pictures, the actions were first described in the L1. After the student was quite familiar with the pictures, and with what he had to do, he was told to attempt the descriptions in English, beginning each sentence with 'Everyday' or 'Last Monday' as the case may be, and restricting each sentence only to a description of the actions. For example:

Everyday Ram is get up
Everyday Ram brush his teeth
Everyday Ram wash his face

and so on until the last picture. Each subject was taken individually, talked to for a while to reduce anxiety, and casually told to describe the pictures in his mother tongue. Both the descriptions in the L1 and in English were tape-recorded and transcribed later. Contrary to our previous assumption that the children might be overwhelmed by the presence of a tape-recorder, we found that most of the children in fact wanted to speak into a microphone, as it were, and be recorded (they often ask to hear their recorded 'speech'). Again, it appeared as if most of the children were motivated and wanted to speak English.

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(2) The picture-description task has been tried on a number of intermediate level summer students at the Institute of Applied Language Studies, University of Edinburgh, during the summer of 1981.

The transcribed sentences reveal data which is more interesting and true than that obtained by the discrete-point or multiple-choice tests. This is because the oral description is as near to spontaneous speech as is possible for a structured oral task. Secondly, this task shows the difference between form and function in acquisition (see 5.5.2 and 7.2).

The three tasks above supplement each other in revealing more about the tense and aspect system of learners of English from EM and NEM schools.

4.2.2. Elicitation Tasks for Negative and Interrogative Structures

For negation and interrogation, the main focus is on the syntactic structures, i.e. the entire negative and interrogative sentences rather than on one item in the sentences. Hence different tasks from the ones described in 4.2.1 were used to elicit these structures.

Translation from the mother tongue was used to obtain both negative and interrogative sentences. As Lococo (op.cit.:62) has observed, in a translation task "the researcher can zero in on specific syntactic rules which he would like to test" by controlling the type of structures to be translated, and the number of obligatory occasions for error. However, we found one disadvantage in the translation task, i.e. when the learners have very little vocabulary in English (NEM class 4), they had to be given a glossary for all the words except the negative or any part that is being tested. Other than this, translation is considered to be quite effective to obtain the learners' version of a negative or interrogative sentence since they have to construct an entire 12 sentence. Secondly, since we wanted to find out if relexification or restructuring takes place for syntax a translation task offers the best opportunity for such processes. Lastly, translation too is very familiar to the NEM subjects who comprise the majority group in our study.

A second elicitation tool used is the transformation task, i.e. to change a declarative sentence into a negative, and an affirmative sentence into an interrogative (Y/N or Wh-question). The rationale for the choice of this task is the assumption that for

negative or interrogative sentences, some kind of syntactic rules (transformation rules such as neg. insertion or subject-verb inversion within the TG framework) should have been internalised and available for use. The stimuli - declarative/affirmative sentence in English - provides a clue for the learners' own negative/interrogative structures, therefore in the transformation task the problem of inadequate lexicon does not arise. In this task, the focus is on the learners' knowledge or lack of knowledge of the syntactic rules in English. Moreover, the transformation task is also a common classroom and test exercise in both EM and NEM schools familiar to all the subjects.

For negation and Wh-questions error correction task is the third type of technique to elicit data. This is combined with the grammaticality judgement task, i.e. a correct or incorrect negative or interogative sentence is given, with instructions to (i) read the sentence carefully, (ii) mark it either right (✓) or wrong (x) according to what the testees think it to be, and (iii) if it is wrong, to correct it at the space below the sentence.

Such error identification and correction tasks have been used by many researchers, especially when some kind of metalinguistic judgement is called for. Menyuk (1967:133) believes that "unconscious judgement and correction appear to precede the ability to consciously judge and explicitly correct" because he found that many preschoolers in his study spontaneously corrected ungrammatical sentences but could not do so when asked explicitly to correct. Other studies (de Villiers and de Villiers 1972) also suggest that young children are capable of reliable performance on such tasks, though they may not be able to say explicitly why they 'correct' the way that they do. This is because the learner 'knows' a grammatical rule in decoding long before they can use it to generate sentences or to give conscious explanations about the rule. It is for this reason too that learners are fairly good at saying whether a sentence is right or wrong, i.e. judge its grammaticality, on the basis of what Bialystok (1979a, 1979b) has called 'implicit' linguistic knowledge, or the way the sentence 'sounds' to the ear.

Chao Shin (1979) observed that judgement tasks in L2

research are influenced by psycholinguistic experiments. Some L2 researchers also believe that the competence and linguistic system of the learner cannot be gauged only by production data ("primary behavioral data" in Chao Shin's term and "textual" data according to Corder 1971). Corder has stated that textual data alone cannot represent all of the learner's language because (i) it is limited in quantity, (ii) it is biased because of internal and external constraints. It is for reasons such as these that this study includes a grammaticality judgement task which provides the researcher with an access to the learners' intuition about the TL.

Summary

For all the areas studied, a battery of tasks have been used to elicit data which will yield a good insight into the learners' system, each task supplementing the other tasks. Some tasks like the discrete-point task yield only accurate/inaccurate type of data while easing the task of quantification. Other tasks like picture description and translation give a wider and truer perspective of the learners' idiosyncratic languages. Some tasks focus on form, while others on function. Thus we can arrive at a more comprehensive picture of the learners' system. Secondly, variability due to differences in the tasks will be examined. Variability will be related to situational constraints on the tasks and the degree of access to and control of linguistic information conditioned by the type of task. Task comparisons will help uncover more about our research tools, following studies like those of Lococo (op.cit.), Larsen-Freeman (1975) and others.

As stated above, our main consideration is the elicitation of quantifiable and qualitatively variable data which will enable us to statistically test learners' performance scores and examine strategies and processes of second language learning.

4.3. Pilot Testing

Before the final administration of the tests, it was necessary to conduct a pilot study to find out the suitability of our tools for the subjects under study, so that the maximum results

can be obtained. As mentioned earlier, the picture-description task for eliciting spontaneous oral data was tried out in Edinburgh in June-August 1981. During the period June-September 1982 it was necessary to go back to Shillong in North-East India for pilot testing and the final administration of the tests. Initially the investigator consulted with teachers concerned about the familiarity of students with such tests. It was found that the picture-descriptions, error correction and grammaticality judgement and elicited imitation tasks were the only ones not used by the teachers. These were tried out, along with the other tasks, in the pilot testing period in two schools. The following changes were made:

(1) Elimination of the Elicited Imitation task for tense and aspect because it was not always clear which inflections the testees had used, e.g. 'had speaking' or 'had spoken'. Some attempt was made to check by asking questions - 'did you say this (researcher writes 'speaking') or this (researcher writes 'spoken'). This was found to be time consuming and unproductive, therefore the task was abandoned.

(2) Changes in the initial pictures for the picture-description task to eliminate those which are not familiar to our students (e.g. a bath, since the children came up with sentences like 'Everyday Ram/Don sit in a tub') and substituting with more easily identified pictures. Also, the original 15 were increased to 20 pictures.

(3) Removing some items from the fill-in-the-blank test when they were found to be misinterpreted. Also, much simpler sentences had to be used for class 4 NEM, with the L1 word given for each of the verbs to be inflected.

(4) Simplifying the translation tests for NEM (class 4).

(5) Clarifying the instructions given for each of the tasks and including the L1 version for the instructions.

4.4. Administration of the Tasks

To administer the tests the researcher had to enlist the help of the teachers of the respective schools. This was all the more necessary because in some schools there was no large hall to seat the children or it was not always available. Thus sometimes space was limited and the children had to sit quite close to each

other. However, any likelihood of copying from each other was prevented because of the researcher's and teachers' invigilation. Moreover, the testees were told that the object of the tests was to find out their difficulties and help them, and that they had nothing to do with the school examinations. They were also assured that the papers will not be shown to anyone so they need not worry about writing in English.

For all the written tasks except the translation task, the testees had to write on cyclostyled sheets (see Appendix IV for the format and items of the tests). For the translation task, question papers were given in the Lls and the answers were written on plain sheets. No time limit was set for any of the written tasks, so that the testees were under no pressure whatsoever. Also, the testees were encouraged to attempt all the questions to the best of their knowledge, and not to leave any question unanswered.

A different approach was adopted for the oral production task. We realised that anxiety and other psychological barriers are all the more pronounced in a face-to-face communication task, hence only the researcher conducted the test with each respondent. Sometimes because of the unavailability of rooms, the 'tape sessions' were very casually taken outside while the teacher sent one student at a time. Each session began with some light-hearted chat, then gradually led to the task. The first description was in the L1, for three reasons: (i) to familiarise the respondents with the task, (ii) to break through any fear or anxiety since describing the actions in the picture in the mother tongue is an extremely easy task (child's play), (iii) to time the minutes and seconds taken for the 20 sentences associated with the 20 pictures. The respondent was then encouraged to try the same descriptions in English, and if possible, to finish describing the pictures within the same time limit that he had taken for descriptions in the mother tongue. The purpose [3] was to gently nudge the child to produce spontaneous unmonitored data.

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(3) It is to be mentioned here that most children thought that the purpose was to find out about their pronunciation in English, and some even volunteered to sing in English to impress me about their ability in English.

Additional data for negation from Bengali students was taken in November 1983. The main purpose of this additional data was to find out whether relexification of the mother tongue is a strategy in the syntax of negation. Secondly, since Bengali has Neg. final structure, it was considered worthwhile to compare this data with the Hindi and Khasi data insofar as the acquisition of syntax is concerned. But no statistical analyses of the Bengali data was possible because it was taken towards the end of the project.

4.5. Scoring and Methods of Analysis

For each of the tests, a score of 1 was given for correct response in the given context. For negation, sentences like:

4.1. I am her did not meet yesterday

was scored wrong for all statistical analyses, but to find out the use of different neg.variants (is not, don't, did not etc.) in the implicational analyses, the negator 'did not' was isolated from the sentence and quantified under 'did not'.

For interrogative sentences, the use of the question operator, i.e. its presence and use, was given a score of 1. This was scored independent of inversion; the word order (inverted subject NP and verb) was scored the second time round. This is exemplified below:

		Score
4.2.	He will going to school today?	0
4.3.	He is going to school today?	1 (for correct Aux.)
4.4.	Is he going to school today?	2 (for inversion)

Though scoring the papers twice for interrogation was very time consuming, it was considered necessary to separate word order from correct Aux. so that the two would be analysed separately.

The methods of analyses used will be given in Chapter 5 as introductory remarks to each section of analysis. Here we will be concerned only with some general considerations.

4.5.1. Tests for Significant Differences and Hypothesis Testing

Statistical differences between the three main groups - EM, NEM(K), NEM(H) - was mainly ascertained by the use of analysis of variance (ANOVA). Following Guildford and Fruchter (1968:223) the following reasons are given for the choice of ANOVA as a statistical test:

(1) ANOVA is a single composite test for all the 9 samples in this investigation. T-tests can be used only for 2 pairs at a time, therefore 9 samples would involve 36 comparisons. The tests do not justify the amount of labour and time involved, especially when there is a possibility that none of the differences between pairs would prove to be significant.

Besides the practical reason given, there are important statistical considerations such as

(2) The null hypothesis (H_o) is made to apply to all the 9 samples - that they all arose by random sampling from the same population - therefore we should use all the data to make a stable estimate of the population variance. On the other hand in pair-wise T-tests only the data from the 2 samples involved can be used

(3) Even if one pair among 36 is significant, we should still conclude that none of them has significant differences

(4) Since the data in this study is at an interval scale, ANOVA is considered to be more appropriate than Chi-square which is mainly for nominal data

(5) Lastly, the F statistic from ANOVA is applicable both to large and small samples (Guildford and Fruchter, op.cit:165) therefore it is appropriate for use in this study because hypothesis testing is sometimes on a larger sample (N=60, e.g. NEM(K) and NEM(H) and sometimes on a smaller sample (N=30) for each school type). Moreover, the F statistic is "robust" (Robson 1973:81) and can be used even when the distribution is not normal.

Having considered some reasons for the use of ANOVA, we will also discuss why a two-way rather than a one-way programme has been used in many cases:

(1) If F is significant, there is still no way of knowing whether this is due primarily or solely to Factor A or to Factor B, or to both possible sources. On the other hand, if F is not significant, there is no way of knowing definitely that one of the factors or experimental variations is not actually producing real variations that were counteracted by the effect of the other factors; thus there will be a confounding effect

(2) It follows that in a 2 or n-way ANOVA it is possible to segregate the variations contributed by each experimental variable, thus significant differences will emerge in the F test; the researcher is then able to attribute differences to Factors A or B or to their interaction A X B

(3) The statistics produced by the interaction of the various Factors A and B and C (in some cases) could be used later to calculate significant differences in pair-wise comparisons (Scheffe or S Test Guildford and Fruchter, op.cit.:235).

The second type of analysis therefore is the S-method to find special t values (t') for groups or pair-wise comparisons for a more detailed picture of significant differences. It is considered necessary to find out if, say, H4 is significantly different or not from K4 or E4 or H7 etc. To calculate t', the following statistics from the ANOVA output have been used: (i) means of all the groups, (ii) mean square error of the interaction being examined (details of the calculation for t' is given in Appendix IV).

Since S-tests are designed for making all the comparisons among means in a logical grouping of cells they are considered to be more conservative than other methods. In our analysis, S-tests (both manually and by computer) have made it possible to compare all 9 groups with each other for significant differences. S-tests have also been used to see the position of group relative to each other.

The above constitute the major types of analyses for testing hypotheses and significant differences. However, in some cases where there are only two comparisons to be made (like Y/N interrogation tasks) T-tests have been used to test for significant differences. Again, when S-tests have to be worked out by computer, SPSS Subprogram oneway has been used instead of a 2 or 3-way ANOVA.

4.5.2. Correlation Analysis

4.5.2.1. Pearson Product Moment Correlation

Pearson correlation has been used to find out the strength of relationship between (i) grammatical categories of tense and aspect, (ii) types of tasks in each of the areas under study. The Pearson produce moment correlation statistic r is especially appropriate for the second variable because r "is an index of the tendency for the scores of a group of examinees on one test to covary ... with the scores on the same group of examinees on another test" (Oller 1978:54). Correlation coefficients also indicate how much agreement exists between any pair of variables (e.g. scores in simple present and simple past tenses; scores in test 1 and test 2 etc.). As such, correlations can also be used to assess the reliability and validity of tests (Allen and Davies 1977:22). Again, correlations also have predictive value, because if r approaches nearer to the perfect correlation of 1, the more valid test is as a predictor of scores in test 2, or vice versa. A high correlation (0.95) depends on the relative position of each individual in both tests, and the relative distances between individuals which should be comparable. A good guide to interpret correlations have been given by Connolly and Slukin (1957:154) and cited in Allen and Davies (p.25):

0.90 - 1.00	very high correlation, very strong relationship
0.70 - 0.90	high correlation; marked relationship
0.40 - 0.70	moderate correlation; substantial relationship
0.20 - 0.40	low correlation; a definite relationship but a small one
0.20 and less	slight correlation; relationship so small as to be negligible

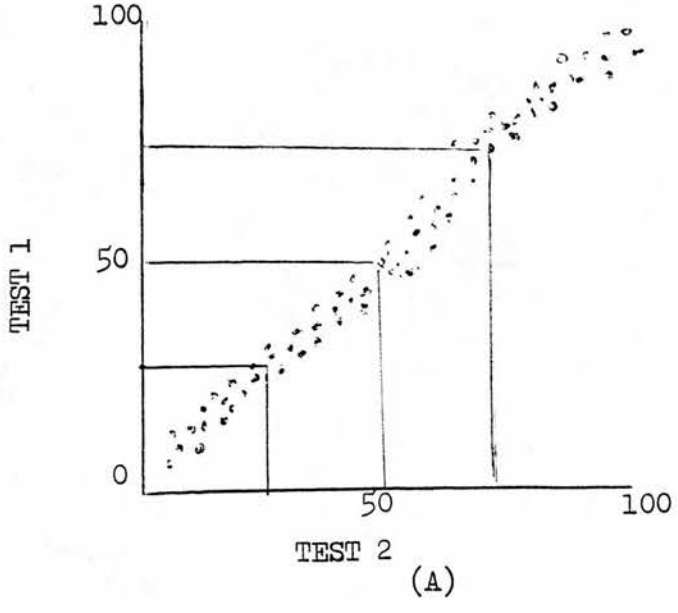
For levels of significance, Fisher and Yates (1938) have given the following guidelines

P	r
.1	.16
.05	.19
.02	.23
.01	.25
.001	.32

Lastly, following Garrett (1965), attempts have been made to interpret correlations with reference to the conditions under which it was obtained, such as the nature of the variables, the significance of the coefficient, the groups under study etc.

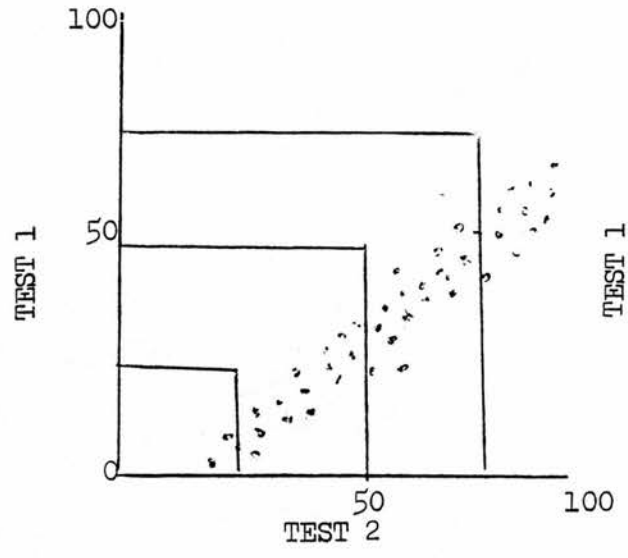
4.5.2.2. Scattergrams

Scattergrams have been used to visually display the scores of individual subjects in two tests in all the areas in this study. Scattergrams are a kind of graph where the x-axis is used for scores on test 1, and the y-axis for scores on test 2. Each individual is represented by a dot placed according to his scores in tests 1 and 2. A 'good' scattergram which reflects a certain degree of agreement between the two tests can be of the shape below:

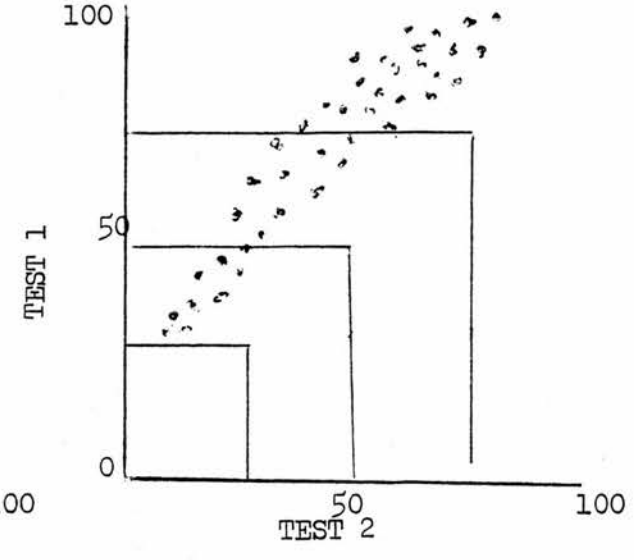


(A)

In (A) the testees score similarly in the two tests. Dissimilar scores in the two tests, but showing correlations, are exemplified in (B) and (C) where those who score better in test 2 have low scores in test 1, and those who have high scores in test 1 have low scores in test 2.



(B)



(C)

In plotting scattergrams, we are interested in the spread of the individual testees which will indicate the kind of relationship that exists between any two tests.

4.5.3. Implicational Analysis

Implicational analysis or scalogram is the third method for analysing data. Scalogram is important to examine whether the control of a grammatical category/a neg. variant/a question operator, subsumes the control of another category/variant/ operator. In other words, implicational analysis indicates if each of the variables is implicationally related to the other variables. If the implication holds a learner who has control of variable 2 also has control of variable 1, but not vice versa, in an increasing scale of difficulty. Because of this cumulative and implicational property, scalogram can be fruitfully used in order of accuracy/acquisition studies. Secondly, individuals can

be placed on vertical lines (rows) for a disply of their positions on an IL continuum.

In this chapter we have only discussed generally the rationale for the use of these methods of analysis. In the two subsequent chapters dealing with the analysis of data, the details of the above methods will be discussed as introductory remarks before the different analyses.

CHAPTER 5

Tense and Aspect : Analysis of the Data

5.0 This chapter deals with the acquisition of tense and aspect by nine groups of learners (discussed in 4.1). This chapter will be divided into two main parts: the first part will be concerned with the investigation of systems of relationships among the six tense and aspect categories under study: 3rd singular, simple past, present and past progressive, present and past perfect. The possibility of an inherent order (1) in the tense and aspect system is examined, based on the analysis of the data.

The second part of the chapter will be concerned with variation in the data; this will be in terms of groups rather than individuals, except in implicational analysis and scattergrams where it is possible to see patterns of behaviour of the individuals.

The two parts will be linked to each other, based on the notion that there are patterns and systematicity in the correlations and patterns of acquisition in spite of variation, i.e. variation is not random.

Issues relating to correlations and variations in the six grammatical categories, and the pattern of acquisition by the learners are not directly testable. Since they cannot be formulated as null hypotheses they are defined as working hypotheses to be investigated by the use of certain analytical procedures. Such theoretical and general hypotheses (2) are H5.1 to H5.5 in sections 5.1 to 5.5. Testable hypotheses relating to variability due to time, medium of instruction and task differences are formulated as null hypotheses to be falsified or accepted after

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(1) In this chapter we will concentrate on the analysis of the data. The concept of an inherent order in tense and aspect will be linked with the discussion of the order of acquisition in Chapter 7.

(2) While some of these hypotheses are drawn from those stated in Chapter 3, some are specific to the tense and aspect categories.

they have been empirically tested. Null hypotheses H_o5.1 to H_o5.3 are set out in section 5.6 to 5.8.

5.1. Correlations in Tense and Aspect Grammatical Categories

In this section we use a bivariate correlation analysis to find out the inter-item relationships of the six tense and aspect categories. If any relationship is significantly high, then tense and aspect system in English can be grouped together and can be logically taken together for further analysis. Firstly, in computing Pearson's correlation coefficients (henceforth 'r') we have a measure of association indicating the strength of relationship between two variables (here the tense/aspect categories). Secondly, r gives us the direction of relationship, i.e. whether two variables are positively or negatively correlated. Finally, it is hoped that finding a system in the tense and aspect categories will throw some light on their acquisition by learners. The assumption that there are positive and definite correlations between the categories are stated as working hypotheses below:

H5.1 There are no positive correlations among the tense and aspect categories in English.

H5.2 There is no system in the tense and or aspect relationship, i.e. the strength of the correlations between pairs are random.

Analysis 5.1.1.Pearson Correlation Coefficients

The preformance scores were used as data for computing Pearson's r. The output is given in Table V.1.A in Appendix V.

Next, the groups were classified according to school-type: NEM(K), NEM(H) and EM, and r's were computed for each group. Correlation matrices as outputs are given in Tables V.1.B - E in Appendix V. Correlation coefficients from the five tables above are arranged in Table 5 below in a descending order as the strength of the relationship between items decreases. The correlation matrix in the table therefore gives the r's based on overall combined scores of NEM(K), NEM(H) and EM.

TABLE 5. PATTERNS OF CORRELATIONS IN TENSE AND ASPECT.

I. Total N=90	II. EM(n=30)	III. NEM(k)(n=30)	IV. NEM(H)(n=30)
A. 3rd Singular with			
1.Pres.Per..8857	1.Pres.Per.8630	1.Pst.Prog.6095	Pst.Per.8486
2.Pst.Per..8824	2.Pst.Per.,8422	2.Sim.Past.5639	Pres.Per.8209
3.Sim.Pst..8493	3.Pst.Prog.7661	3.Pres.Prog..5506	Sim.Past.8058
4.Pst.Prog.7570	4.Sim.Pst..6961	4.Pst.Per.,5437	Pst.Prog.6424
5.Pres.Prog.7049	5.Pres.Prog.5282	5.Pres.Per..5233	Pres.Prog.5731
B. Simple Past with			
1.Pst.Per.,9341	1.Pres.Per.,8357	1.Pst.Per. .8521	Pres.Per. ,9280
2.Pres.Per.9198	2.Pst.Per. .7810	2.Pst.Prog. ,7843	Pst.Per. .9220
3.Pst.Prog.8536	3.3rd.Sing..6961	3.Pres.Per..7840	3rd.Sing. .8058
4.3rd.Sing.8493	4.Pst.Prog.,5655	4.Pres.Prog.6970	Pst.Prog. .8030
5.Pres.Prog.8005	5.Pres.Prog..3143	5.3rd.Sing..5639	Pres.Prog.,7513
C. Present Progressive with			
1.Pst.Prog.,9307	1.Pst.Prog..7325	1.Pst.Prog..8807	Pst.Prog.,9224
2.Pst.Per. .8159	2.3rd Sing..5282	2.Pst.Per. .7504	Pst.Per. .7693
3.Sim.Past..8005	3.Pst.Per. .4685	3.Pres.Per.,7377	Sim.Past.,7513
4.Pres.Per..7804	4.Pres.Per..3746	4.Sim.Past.,6970	Pres.Per..7264
5.3rd.Sing. .7049	5.Sim.Past..3143	5.3rd.Sing.,5506	3rd.Sing.,5731
D. Present Perfect with			
1.Pst.Per. ,9 722	1.Pst.Per. ,8687	1.Pst.Per. .9441	Pst.Per. ,9743
2.Sim.Pst. .9198	2.3rd.Sing..8630	2.Pst.Prog.,8233	Sim.Past..9280
3.3rd.Sing..8857	3.Sim.Pst. .8357	3.Sim.Pst. .7840	3rd.Sing..8209
4.Pst.Prog. .7804	4.Pst.Prog..6803	4.Pres.Prog.7377	Pst.Prog..7604
5.Pres.Prog..7804	5.Pres.Prog..3746	5.3rd.Sing..5233	Pres.Prog.,7264
E. Past Progressive with			
1.Pres.Prog.9307	1.3rd Sing..7661	1.Pres.Prog.8807	Pres.Prog.9224
2.Pst.Per. .8688	2.Pres.Prog..7325	2.Pst.Per. .8430	Pst.Per. .8160
3.Sim.Pst. .8536	3.Pres.Per..6803	3.Pres.Per.,8233	Sim.Pst. .8030
4.Pres.Per.,8318	4.Pst.Per. .6533	4.Sim.Pst. .7843	Pres.Per..7604
5.3rd.Sing. .7570	5.Sim.Pst. .5655	5.3rd Sing..6095	3rd.Sing..6424
F. Past Perfect with			
1.Pres.Per.,9722	1.Pres.Per..8687	1.PstsPer. .9441	Pres.Per.,9743
2.Sim.Pst. .9341	2.3rd Sing..8422	2.Sim.Pst. .8521	Sim.Pst. .9220
3.3rd.Sing..8824	3.Sim.Pst. .7810	3.Pst.Prog..8430	3rd.Sing..8486
4.Pst.Prog..8688	4.Pst.Prog..6533	4.Pres.Prog.7504	Pat.Prog..8160
5.Pres.Prog.8159	5.Pres.Prog.4685	5.3rd.Sing. .5437	Pres.Prog.7693

Results

In all cases there are positive correlations, which range from .3143 (row B5 col.II) to .9743 (row D1 col.IV). Most of the correlations are highly significant.

The pattern that emerges on closer examination of the r's is as follows:

Relationship of aspect is stronger than that of tense, e.g. in row C in all four columns present progressive is more strongly correlated with past progressive than with 3rd. Sing. Again, in row D col.I-IV, present perfect is highly correlated with past perfect as when compared to the weaker correlations with present progressive or 3rd. Sing. The same can be seen in row E and F. An explanation for this could be the presence of distinctive Aux., i.e. both present and past progressive are preceded by the Aux. Be ($\pm$ Tense); both present and past perfect are preceded by the Aux. Have ($\pm$ Tense). Secondly, there are common morphological inflections in the present and past progressive (-ing), and for present and past perfect (-ed, -en, -d, -t) (and some irregular forms). This may also explain why there are strong correlations between the simple past and the two perfect aspects. Row B1 and 2 also attest to this fact. In B5 columns I, II and IV we note that the present progressive has weak correlations with simple past, which may be because they share no common morphological marking of tense or as pect. Similarly in C5 columns I, III and IV, 3rd.Sing. is farthest from the present progressive.

Though there are three columns (I, III and IV) in A which show very similar correlations (i.e. perfect aspect at rows 1 and 2), we cannot offer any valid explanation for the strong correlation between perfect aspect and 3rd. Sing. except that they are the last categories to appear.

In general, there does seem to be a definite pattern in the correlations, both in terms of direction and strength. These results are valid enough to enable us to posit: (i) the existence of positive correlations among the tense and aspect categories in English; (ii) the existence of a system in the relationships between tense and aspect categories in English: aspectually related

pairs (progressive $\pm$ Tense) and (perfect $\pm$ Tense) have stronger relationships than pairs related by tense (e.g. present progressive and present perfect). This point will be taken up in the discussion of the order of acquisition of the six tense and aspect categories in Chapter 7.

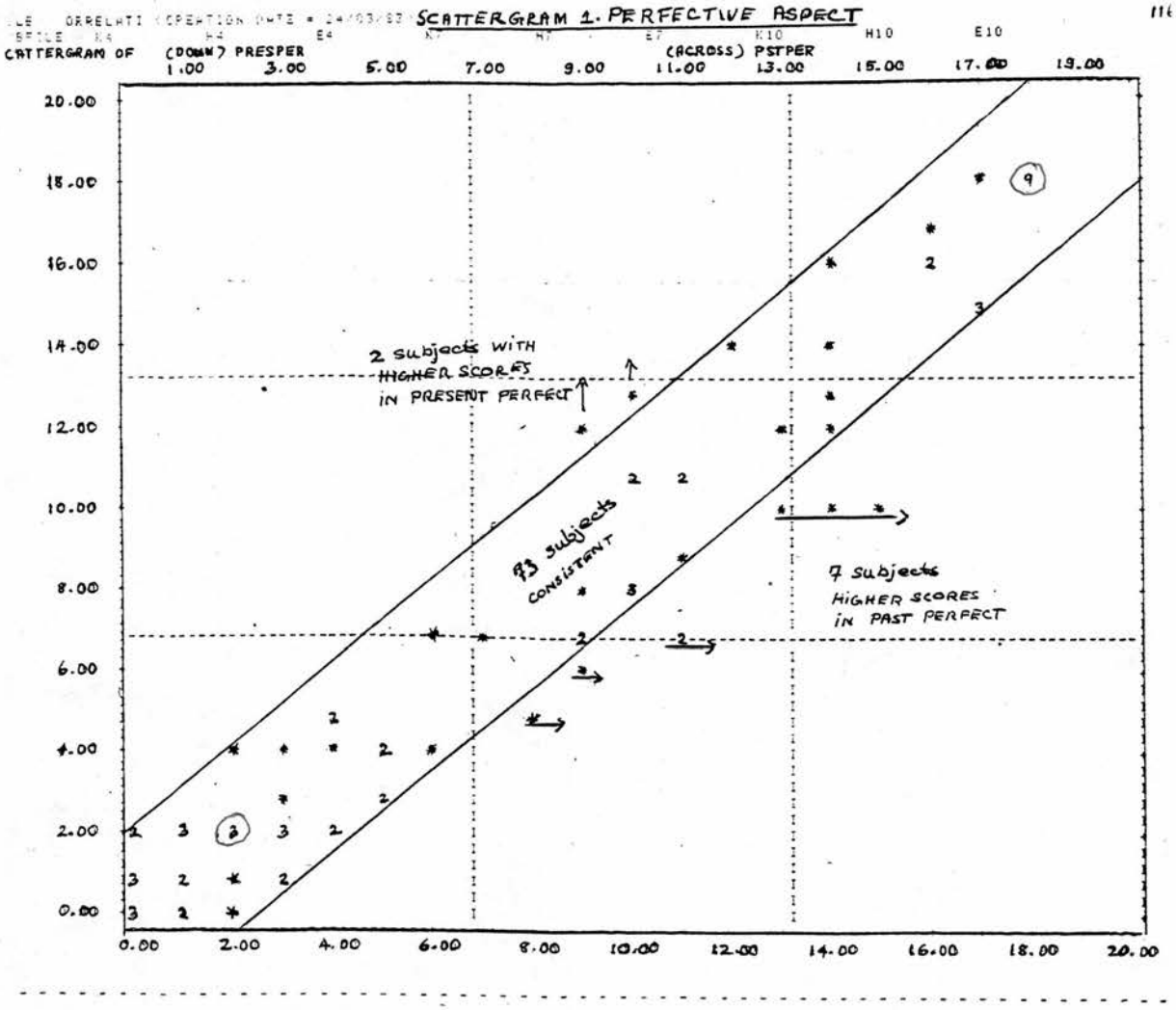
Analysis 5.2 Correlation Analysis : Scattergrams

Pearson's r's in the above analysis are single and cumulative measurements of (i) the strength of relationship between any pair of grammatical categories, (ii) the positive direction of the relationship, (iii) the strong linear relationship in pairs where r's approach closer to 1 (the perfect linear relationship).

In the next analysis we will examine the details of how each subject's performance in pairs with stronger correlations (present and past perfect, present and past progressive), contrast with weaker related pairs (3rd. Sing. and simple past). These will be displayed in scatter diagrams. We will also look at correlation in terms of link and prediction between any two subjects.

The raw data for the computer-plotted scattergrams 1, 2 and 3 (below and in Appendix V) was the performance scores of subjects in the six subtests.

Scattergram 1. Performance of subjects in present and past perfect.



RRELATION TENASP 29/03/83 PAGE 6

STATISTICS

CORRELATION (R)-	0.97224	R SQUARED -	0.94526	SIGNIFICANCE -	0.00000
STD ERR OF EST -	1.65045	INTERCEPT (A) -	-0.23004	SLOPE (B) -	0.97254
PLOTTED VALUES -	90	EXCLUDED VALUES-	0	MISSING VALUES -	0

****** IS PRINTED IF A COEFFICIENT CANNOT BE COMPUTED

Note: Subjects spread from 0 to 18 along the continuum for present and past perfect.

The scattergram above is a graph of data points based on two variables (here present and past perfect) which define the horizontal (X) and vertical (Y) axis. For each subject the scores in the variable serve as the co-ordinate of the point representing that subject. The distribution of the subjects in the two subtests can be interpreted as follows: within the lines across the middle there are 73 subjects whose performances in the two subtests are more or less consistent, e.g. the circled (3) at the bottom left represent three subjects who scored 2 (11%) in present and past perfect. At the top right corner there are 9 subjects who scored the maximum 18 (100%) in both subtests. These are just representative cases where high or low scores in one subtest predicts low or high scores in the other. Since 89% of the subjects behave in this consistent and predictable manner, we hypothesize that the acquisition of present and past perfect is very closely linked, as can be seen also in the spread of these subjects throughout along the two lines.

A very similar picture is seen in scattergram 2 (Appendix V) but this time there are only 56 subjects (73.3%) of whom we can predict consistent or very close scores in both present and past progressive. 20 subjects (26.6%) are above the upper line; they have scored better in the present than in the past progressive. Better performance in the present progressive is by a small percentage, since the subjects are still close to the middle lines and within the broken lines. These results again show that there is a possibility of the acquisition of the present and past progressive at a close interval of time.

Scattergram 3 (simple past and 3rd. Sing. Appendix V) gives a different picture: there are only 56% who are consistent since quite a number (42%) show better performance in simple past (indicated by the points along the arrows below the lower line) while two subjects move opposite to the two trends of consistency or improvement in the simple past.

To summarise, we present the figures of the three scattergrams below:

TABLE 6 Summary Results from Scattergrams 1 - 3 n = 90 (2)

	Present and Past Progressive	Present and Past Perfect	3rd. Singular and Simple Past
Consistent	55 (73.3%)	73 (89%)	48 (55.81%)
High scores (Pres. tense)	20 (26.6%)	2 (2.43%)	2 (2.32%)
Higher scores (Past tense)	Nil	7 (8.53%)	36 (41.86%)
	75	82	86

Analysis 5.2 confirms that in 5.1 in that it shows that the related pairs with high correlation (present and past perfect, r .9722) show the highest consistency in performance by learners. This is followed by the pairs present and past progressive (r .9307). The results seem to indicate that correlations between pairs of tense/aspect categories are not random.

5.3. Linguistic Categories as Sources of Variation

The working hypotheses in this section are stated below:

H5.3 The six categories of tense and aspect are different from each other, i.e. linguistic categories are sources of variation

H5.4 There is an order in acquisition of the tense and aspect system in English by learners.

Analysis 5.3 Calculation of Percentages of Performance Scores for the Combined Group of Subjects

Percentages of performance scores in the six categories of the subjects in NEM(K), NEM(H) and EM were calculated (3) at 20%

(2) Though the computer plotted 90 values with 0 missing or excluded values, we could locate only 75, 82 and 86 subjects in the Scattergrams. For this reason we used % rather than the actual figures in our discussion

(3) Each of the six categories have 18 obligatory contexts: thus the potential score of each subject for any one subtest ranges between 0 and 18, giving the overall full marks 18 x 90 = 1620.

interval (results in Appendix V, Table V.2). The overall scores at the 80-100% range for each category is calculated and the results are presented in Table 7 below:

TABLE 7 Performance Scores (80-100% range) by all 90 Learners in the Six Tense and Aspect Categories

Grammatical Category	Scores	Percentages
1. Present Progressive	170.0	56.7
2. Past Progressive	156.7	52.23
3. Simple Past	103.4	34.46
4. Past Perfect	86.0	29.0
5. Present Perfect	83.4	28.0
6. 3rd. Singular	80.0	26.66

The results reveal the existence of variation (4) in the six tense and aspect distinctions, such that we can categorise each as 'earliest acquired' (e.g. present progressive) going down a six-points scale to the 'last acquired' (3rd. Sing.). In other words, the six tense and aspects categories are ordered amongst themselves in a definite pattern and one is logically acquired before the other. (We note here that the results show a similarity with the morpheme order studies.)

Analysis 5.4 Spearman Rank-Order Correlations between Groups

To find out whether each of the nine groups fit into the pattern established above and whether it correlates significantly with the other groups with respect to the order of accuracy, we rank-ordered the means of performance scores of each group for each category. Next we computed Spearman rank-order coefficient (henceforth Rho). Results are displayed in the correlation Table 8 below:

(4) Confirmed by Guttman Scales (Table 9).

TABLE 8 Spearman Rank Order Correlations for Nine Groups : Tense and Aspect

VARIABLE PAIR		VARIABLE PAIR		VARIABLE PAIR		VARIABLE PAIR		VARIABLE PAIR		VARIABLE PAIR	
K4	0.8805	K4	0.8363	K4	0.8724	K4	0.8956	K4	0.8515	K4	0.9806
WITH	N(12)	WITH	N(12)	WITH	N(12)	WITH	N(12)	WITH	N(12)	WITH	N(12)
H4	SIG .001	E4	SIG .001	K7	SIG .001	H7	SIG .001	E7	SIG .001	K10	SIG .001
K4	0.8107	K4	0.3972	K4	0.9523	H4	0.7582	H4	0.6188	H4	0.7722
WITH	N(12)	WITH	N(12)	WITH	N(12)	WITH	N(12)	WITH	N(12)	WITH	N(12)
H10	SIG .001	E10	SIG .101	TOTAL	SIG .001	E4	SIG .002	K7	SIG .016	H7	SIG .002
H4	0.7986	H4	0.8728	H4	0.7291	H4	0.3582	H4	0.8153	E4	0.7951
WITH	N(12)	WITH	N(12)	WITH	N(12)	WITH	N(12)	WITH	N(12)	WITH	N(12)
E7	SIG .001	K10	SIG .001	H10	SIG .004	E10	SIG .126	TOTAL	SIG .001	K7	SIG .001
E4	0.9665	E4	0.8271	E4	0.8889	E4	0.9101	E4	0.4838	E4	0.9171
WITH	N(12)	WITH	N(12)	WITH	N(12)	WITH	N(12)	WITH	N(12)	WITH	N(12)
H7	SIG .001	E7	SIG .001	K10	SIG .001	H10	SIG .001	E10	SIG .056	TOTAL	SIG .001
K7	0.8612	K7	0.8295	K7	0.8928	K7	0.7592	K7	0.4821	K7	0.9139
WITH	N(12)	WITH	N(12)	WITH	N(12)	WITH	N(12)	WITH	N(12)	WITH	N(12)
H7	SIG .001	E7	SIG .001	K10	SIG .001	H10	SIG .002	E10	SIG .056	TOTAL	SIG .001
H7	0.8688	H7	0.9298	H7	0.9579	H7	0.4812	H7	0.9719	E7	0.8547
WITH	N(12)	WITH	N(12)	WITH	N(12)	WITH	N(12)	WITH	N(12)	WITH	N(12)
E7	SIG .001	K10	SIG .001	H10	SIG .001	E10	SIG .057	TOTAL	SIG .001	K10	SIG .001
E7	0.8547	E7	0.4864	E7	0.8901	K10	0.8456	K10	0.4812	K10	0.9719
WITH	N(12)	WITH	N(12)	WITH	N(12)	WITH	N(12)	WITH	N(12)	WITH	N(12)
H10	SIG .001	E10	SIG .054	TOTAL	SIG .001	H10	SIG .001	E10	SIG .057	TOTAL	SIG .001
H10	0.4812	H10	0.9298	E10	0.4812						
WITH	N(12)	WITH	N(12)	WITH	N(12)						
E10	SIG .057	TOTAL	SIG .001	TOTAL	SIG .057						

Results

Significant correlations ($p < .001$ to $p < .05$) exist among the pairs of groups, except those of any group with E10. (5) Secondly, the Table shows that almost all the groups (except E10) are significantly correlated with the total. The results therefore support the inherent 'order' found in Analysis 5.3 and the process of acquisition of the eight groups is similar.

5.5. Implicational/Scalogram Analysis

In the previous section we have established that the groups examined fall into a pattern in the acquisition of the categories. In this section we will extend the analysis to see if this pattern can be applied to each individual subject, i.e. whether there is a degree of fit of the scores of individuals to the overall group trends revealed in 5.4. This can be stated in the working hypothesis below:

H5.5 There is a pattern in the acquisition of tense and aspect by individual learners which fits into the overall pattern of group variability.

The raw data for the construction of Guttman Scales and for the calculations of the coefficients of reproducibility, scalibility and inter-item correlations was the performance scores of all the subjects in the six subtests in tense and aspect. The results are given in Table 9.

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(5) The non-significant correlations with E10 can be explained by the fact that E10 has tried ranks for all the six categories, indicating that subjects in this group have categorically acquired all the tense and aspect system so it stands as a group apart.

TABLE 9 Implicational Scales for Tense and Aspect

OITEM..		SING3FB		PRESPER		PSTPER		SIMPSTFB		PSTPRO		PRESPRO		
ORESP..		0	1 I	0	1 I	0	1 I	0	1 I	0	1 I	0	1 I	TOTAL
		I-ERR		I-ERR		I-ERR		I-ERR		I-ERR		I-ERR		
T		I		I		I		I		I		I		
E	6	I 0	17I	0	17I	0	17I	0	17I	0	17I	0	17I	17
N		I------ERR	I		I		I		I		I		I	
A		I		I		I		I		I		I		
S	5	I 3	0I	0	3I	0	3I	0	3I	0	3I	0	3I	3
P		I	I------ERR	I		I		I		I		I		
S		I		I		I		I		I		I		
C	4	I 4	1I	3	2I	1	4I	2	3I	0	5I	0	5I	5
		I		I	I------ERR	I		I		I		I		
		I		I		I		I		I		I		
	3	I 1	0I	1	0I	1	0I	0	1I	0	1I	0	1I	1
		I		I		I	I------ERR	I		I		I		
		I		I		I		I		I		I		
	2	I 16	0I	16	0I	16	0I	16	0I	0	16I	0	16I	16
		I		I		I		I	I------ERR	I		I		
		I		I		I		I		I		I		
	1	I 7	0I	7	0I	7	0I	6	1I	7	0I	1	6I	7
		I		I		I		I		I	I------ERR	I		
		I		I		I		I		I		I		
	0	I 41	0I	41	0I	41	0I	41	0I	41	0I	41	0I	41
		I---------I		I---------I		I---------I		I---------I		I---------I		I---------I		
SUMS		72	18	68	22	66	24	65	25	48	42	42	48	90
PCTS		80	20	76	24	73	27	72	28	53	47	47	53	
ERRORS		0	1	0	2	1	0	2	1	0	0	1	0	8

0 90 CASES WERE PROCESSED
0 (OR 0.0 PCT) WERE MISSING

STATISTICS..

COEFFICIENT OF REPRODUCIBILITY = 0.9852
MINIMUM MARGINAL REPRODUCIBILITY = 0.6796
PERCENT IMPROVEMENT = 0.3056
COEFFICIENT OF SCALABILITY = 0.9538

YULE'S Q..

	SING3FB	SIMPSTFB	PRESPRO	PRESPER	PSTPRO	PSTPER
SING3FB	1.0000	0.9854	1.0000	0.9913	1.0000	1.0000
SIMPSTFB	0.9854	1.0000	0.9524	0.9941	0.9686	0.9914
PRESPRO	1.0000	0.9524	1.0000	1.0000	1.0000	1.0000
PRESPER	0.9913	0.9941	1.0000	1.0000	1.0000	0.9956
PSTPRO	1.0000	0.9686	1.0000	1.0000	1.0000	1.0000
PSTPER	1.0000	0.9914	1.0000	0.9956	1.0000	1.0000
BISERIAL CORR SCALE-ITEM	1.0934	1.1015	0.8495	1.1611	0.9497	1.1738

Results

The computer output of the Scalogram analysis in the above Table shows a high coefficient of reproducibility (.9852) which reveals the extent to which each respondent's scale predicts his response pattern. Since the figure is higher than .9, the six tense and aspect categories indicate valid scale types. The minimum coefficient of reproducibility possible with the cut-off points at 16 (88%) and the proportion of respondents passing and failing each item, is .6796. The difference between the former and the latter at .3056 also indicates that to a certain extent, the coefficient of reproducibility is due to response patterns of the respondents. It is clear from the results that the pattern of response is fairly uniform for most learners, with the exception of eight, four of whom passed an item when they should have failed it (as seen from the right values under the heading ERROR) and four respondents who failed when they should have passed it. The eight errors therefore show that not all learners fit into the same pattern of acquisition. However, since a majority of respondents are implicationally distributed, we are in a position to reject the null hypothesis stated at the beginning of this section.

The results of scalogram analysis can be used for confirming and interpreting findings in sections 5.1 and 5.2 regarding inter-item relationships and inherent order. Thus, the high correlation coefficients (Yule's Q) above .9524 confirm the findings in 5.1 and 5.2 above. Yule's Q figures also indicate that the items do constitute a scale for scalogram analysis because of their correlation to each other and to the total or sum of all the other items (Biserial Correlation). The inter-relationships between the tense and aspect categories also point to their underlying operating characteristics and their ability to meet two important properties which define a Guttman Scale.

(i) Unidimensionality, i.e. "the component items must all measure movement towards or away from the single underlying object" (Nie et al 1970:520)

(ii) Cumulativeness "Operationally, a cumulative scale implies that the component items can be ordered by degree of difficulty and that respondents who reply positively to a difficult item will always respond positively to less difficult items and vice versa " (Nie et al, loc.cit)

Both criteria have been met, since the coefficient of scalability is .9538, much higher than the minimum required (.6) for the scale to be cumulative and unidimentional (in our study, moving towards accuracy in the tense and aspect categories).

The cumulative property of the six categories support the concept of an 'inherent' order within the tense and aspect distinctions, since the items are ordered by degree of difficulty. (6) The order can be worked out from the figures under PCTs, which are percentages of the respondents who pass or fail in each item. There are greatest percentages for the progressive aspect (present before past) than for any other items. Going from left to right, we find that the most 'difficult' category is 3rd. singular. Again, the order obtained in Table 7 is confirmed.

By positing an inherent order within the six tense and aspect categories in English, we are in fact stating another axiom - that the semantic notion and linguistic manifestations of tense and aspect, while strongly correlated, are different from each other. In other words, tense and aspect distinctions are a source of variation in the performance scores of learners (section 5.3 above).

5.6. Variability due to Time (i.e. Class/Level in School)

In this section we will investigate the influence of another factor - time - on the developing system of tense and aspect in learners. This is based on the theoretical notion that interlanguages or transitional competences develop and increase in complexity as a result of time spent in learning the second language. Since this hypothesis is testable, it will be

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(6) Though the term 'difficult' is used here, it will be shown in later sections that the concept of 'functional utility' is more appropriate to explain acquisition orders. For our present purpose, the term can be interpreted as "last acquired".

stated as a null hypothesis:

H_o5.1 There is no significant difference in the performance scores at each class in the two NEM and in the EM schools. The extent of complexity of the transitional grammars of students in classes 4, 7 and 10 is the same.

Analysis 5.6.1. Calculation of Percentages of Performance Scores for each Class

Calculations of correct use of 20% intervals are presented in Table 10.

TABLE 10 Group Ranges of Correct Use at 20% Intervals for Tense and Aspect (Class as Variable)

	Pres.Progressive			Past Progressive			Simple Past		
Class	4	7	10	4	7	10	4	7	10
1.0-19	20.0	0.0	0.0	40.0	0.0	0.0	60.0	6.7	0.0
2.20-39	26.6	3.3	0.0	20.0	10.0	0.0	10.0	30.0	16.7
3.40-59	6.7	13.4	0.0	3.3	20.0	0.0	0.0	26.7	13.3
4.60-79	16.7	23.3	20.0	6.7	20.0	23.3	20.0	0.0	23.3
5.80-100	30.0	60.0	80.0	30.0	50.0	76,7	10,0	36.0	46.7

	Pres.Perfect			Past Perfect			Third Singular		
Class	4	7	10	4	7	10	4	7	10
1.0-19	60.0	40.0	0.0	60.0	33.3	0.0	66.7	33.3	26.7
2.20-39	6.7	20.0	26.7	6.7	23.3	10.0	3.3	26.7	3.3
3.40-59	6.7	3.3	16.6	13.3	3.3	23.3	6.7	3.3	20.0
4.60-79	26.6	3.3	6.7	16.7	10.0	16.7	20.0	6.7	10.0
5.80-100	0.0	33.4	50.0	3.3	30.0	50.0	3.3	30.0	40.0

Examination of the figures in Table 10 gives a picture of the progress from classes 4 through 7 to 10, in each of the three schools. The lowest classes of NEM(K) and NEM(H) cluster around the low ranges 0-19, 20-39. A comparison along the highest range 80-100 shows a progression from classes 4 to 7 to 10, for all the tense and aspect categories. The same results can be seen in the mean score in Table V.3.A in Appendix V.

Analysis 5.6.2 Analysis of Variance : Class as Factor

However, the percentages and the means in the above tables do not reveal anything about significant differences on the basis of which we can falsify H_o5.1. Therefore we proceed to the next step in our analysis: computation of the variance ratio (F) which is a measure of variations in large and small independent samples alike. The variance ratio (F) indicates 'whether or not two variances could probably have arisen by random sampling from the same population of observations or from two populations with the same variance' (Guildford and Fruchter 1968:165). The difference between samples is tested by forming their ratios:

$F = \frac{S_1^2}{S_2^2}$ Where S_1^2 and S_2^2 are estimates of population variances being compared and S_1^2 is greater than or equal to S_2^2.

In our three-levels (classes 4, 7 and 10) problem, we have three independent samples each in NEM(K), NEM(H) and EM making a total of 3 x 3 = 9 samples. The hypothesis we want to test is whether the three samples (in classes 4, 7 and 10) in each school come from the same population or from three different populations.

F is a statistic computed by ANOVA (section 4.1). In that same discussion we had also considered why we had opted for a single composite test (ANOVA) for investigating significant factors of variation and testing for significant differences.

Thus, while we are interested only in time (class) as a factor of variation in this section, nonetheless we will compute the F variance ratios of other factors and their interactions simultaneously. We will however restrict our results and discussions in this section to the effect of time.

BMDP (P2V) was used for an analysis of variance because (i) it provides for a repeated measures design which incorporates several observations on the same subject, (ii) it operates on cells of equal sizes.

Firstly, in the analysis each subject was observed twice for (i) Progressive aspect (present and past), (ii) Perfective aspect (present and past). In both cases performance scores in the present and past tenses provide the first and second measurements respectively. Secondly, all the cells in the 3 x 3 two-way ANOVA are complete and equal.

Using the raw data for tense and aspect in Table V.4 in Appendix V we programmed ANOVA runs and computed sums of squares, mean squares and the variance ratios (F) for the following:

A. Tense distinction in the progressive aspect
B. Tense distinction in the perfective aspect
C. Simple past
D. Third person singular present tense.

The results are given in Tables

ANOVA Summary Table 11A Progressive Aspect

Source	Sum of squares	DF	Mean square	F
Mean	972078.17	1	972078.17	**2830.65
Class	50902.60	2	25451.30	** 74.11
Medium	55589.86	2	27794.93	** 80.94
CM Interaction	19677.63	4	4919.40	** 14.33
ERROR	27816.35	81	343.41	

** p = 0.01 level of significance

ANOVA Summary Table 11B Perfective Aspect

Source	Sum of squares	DF	Mean square	F
Mean	428594.02	1	428594.02	**1344.73
Class	64731.47	2	32365.73	** 101.55
Medium	136299.38	2	68149.69	** 213.82
CM Interaction	8308.63	4	2077.15	* 6.52
ERROR	25816.35	81	318.72	

ANOVA Summary Table 11C Simple Past

Source	Sum of squares	DF	Mean square	F
Mean	290134.44	1	290134.44	**1912.38
Class	38655.75	2	19327.87	** 127.40
Medium	55216.95	2	27608.47	** 181.98
CM Interaction	5812.04	4	1453.01	* 9.58
ERROR	12288.80	81	151.71	

ANOVA Summary Table 11D Third Singular

Source	Sum of squares	DF	Mean square	F
Mean	165036.84	1	165036.84	** 531.46
Class	26057.62	2	13028.81	** 41.96
Medium	73128.62	2	36564.31	** 117.75
CM Interaction	1645.51	4	411.37	1.32
ERROR	25153.40	81	310.53	

** p = 0.01 level of significance
* p = 0.05 level of significance

Results

In ANOVA Summary Tables 11 (A-D) the F variance ratios under the heading 'Class' are all significant beyond the p.05 level of significance. This falsifies the null hypothesis defined at the beginning of this section which posits that there are no significant differences in the transitional grammars in classes 4, 7 and 10. The evidence given above indicates development from classes 4 to 7 to 10 and supports the view that there is progressive movement along the IL developmental continuum as a function of time.

Analysis 5.6.3 S-tests for Comparison of Group Means

So far we have considered only the F values under the single factor 'Class' in the above tables. In this second part of the analysis we will look into the interactional effects of class by medium of instruction (CM) in all four tables. Interaction variances are more revealing in a 2 or n-way ANOVA because they explain variation when two or more factors interact. Furthermore, significant interaction variances justify the breaking-down of the whole combination of differences into component differences among the nine samples. Notice that the F test reveal nothing more than the overall variation: it does not tell us where the actual differences are between the nine samples. It may be possible for example, that class 4 in the EM school may not be significantly different from class 7 in NEM(K) or NEM(H), a possibility which is obscured by the general statements made in Analysis 5.6.1. In such a case, class (4) by medium (English) interaction does not produce significant differences, but class (4) by Non-English medium does.

For more detailed analysis such as these we used the S (Scheffe) method for post hoc comparisons of nine group means (see Guildford and Fruchter 1968:235-242) and for judging all contrasts in the ANOVA. These contrasts are special t values (t') obtained by the formula:

$$t' = \sqrt{2\,Fs}\ \sqrt{\text{MS error}}$$

Where N = the number of plots in each cell total

MS error = the mean square (MS) over which the interaction MS was placed.

$F_s = F_{k-1,f}$ (F is the tables value with k-1 df as numerator, f is the df for MS error in Tables

Results

Scheffe Table 12A — Progressive : Medium by Class Interaction

	K4	H4	K7	H7	K10	H10	E4	E7	E10
cell means	258	314	619	767	836	883	947	989	1000
258	K4	56	*361	509	578	625	689	731	742
314		H4	305	453	522	569	633	675	686
619			K7	148	217	264	328	*370	*381
767				H7	69	116	180	220	233
836					K10	47	111	153	164
883						H10	64	106	117
947							E4	42	53
989								E7	11
1000									E10

Calculated t value $p < .01 = 420$
$p < .05 = 392$
Total No. of significant differences : 15

Scheffe Table 12B — Perfective : Medium by Class Interaction

	K4	H4	K7	H7	K10	H10	E4	E7	E10
cell means	56	81	156	308	492	653	689	958	1000
56	K4	25	100	252	436	597	633	902	944
81		H4	75	227	411	572	608	877	919
156			K7	152	336	497	533	802	844
308				H7	184	345	381	650	692
492					K10	161	197	466	508
653						E4	36	305	*347
689							H10	269	311
958								E7	42
1000									E10

Calculated t value $p < .01 = 402$
$p < .05 = 350$
Total No. of significant differences : 21

Summary of the above Tables:

Scheffe Table 12. A Progressive

	K4	H4	K7	H7	K10	H10	E4	E7	E10
K4	NS	S*	S	S	S	S	S	S	
H4		NS	S	S	S	S	S	S	
K7			NS	NS	NS	NS	S*	S*	
H7				NS	NS	NS	NS	NS	
K10					NS	NS	NS	NS	
H10						NS	NS	NS	
E4							NS	NS	
E7								NS	
E10									

Scheffe Table 12. B Perfective

	K4	H4	K7	H7	K10	E4	H10	E7	E10
K4	NS	NS	NS	S	S	S	S	S	
H4		NS	NS	S	S	S	S	S	
K7			NS	NS	S	S	S	S	
H7				NS	S	S	S	S	
K10					NS	NS	S	S	
E4						NS	NS	S*	
H10							NS	NS	
E7								NS	
E10									

Scheffe Table 12C — Simple Past : Medium by Class Interaction

		K4	H4	K7	H7	K10	H10	E4	E7	E10	
		56	84	355	450	679	737	761	988	1000	
K4	56		28	299	394	632	681	705	932	932	K4
H4	84			271	366	625	653	677	904	916	H4
K7	355				95	324	382	406	633	645	K7
H7	450					229	287	311	538	550	H7
K10	679						58	82	309	321	K10
H10	737							24	*251	*263	H10
E4	761								227	*239	E4
E7	988									12	E7
E10	1000									-	E10

Calculated t value p < .01 = 268
p < .05 = 233
Total No. of significant differences : 28

Scheffe Table 12D — Third Singular : Medium by Class Interaction

		H4	K4	H7	K7	K10	H10	E4	E7	E10	
GROUPS		00	18	179	296	574	493	606	888	1000	
H4	00		18	179	296 *	574	493	606	888	1000	H4
K4	18			161	278 *	356	475	588	870	982	K4
H7	179				117	195	314	427	709	821	H7
K7	296					78	197	310	592	704	K7
K10	374						119	232	514	626	K10
H10	493							113	395	507	H10
E4	606								282	394	E4
E7	888									112	E7
E10	1000									-	E10

Calculated t value p < .01 = 384
p < .05 = 333
Total No. of significant differences : 20

Summary:

Scheffe Table 12. C Simple Past

K4	H4	K7	H7	K10	H10	E4	E7	E10
K4	NS	S	S	S	S	S	S	S
	H4	S	S	S	S	S	S	S
		K7	NS	S	S	S	S	S
			H7	NS	S	S	S	S
				K10	NS	NS	S	S
					H10	NS	S*	S*
						E4	NS	S*
							E7	NS
								E10

Scheffe Table 12. D Third Singular

H4	K4	H7	K7	K10	H10	E4	E7	E10
H4	NS	NS	NS	S*	S	S	S	S
	K4	NS	NS	S*	S	S	S	S
		H7	NS	NS	NS	S	S	S
			K7	NS	NS	NS	S	S
				K10	NS	NS	S	S
					H10	NS	S	S
						E4	NS	S
							E7	NS
								E10

Interpretation of the above Tables

Columns are arranged such that the group with the lowest mean scores is at the extreme left, and the group with the highest (E10) at the extreme right in an ascending order of performances. Rows (the oblique lines) are similarly arranged - the lowest scoring group is at the top left end, and the highest scoring group at the bottom converging to the right. Pairwise comparisons are made by looking at the row and the column, e.g. in Table 12A K4 (row) compared with H4 (column) show non-significant difference. K4 with K7 shows significant difference at the .05 level of significance and significant differences at .01 level with all other groups (H7 to E10). In the same way we can go from one row to the next and compare a particular group with each of the other groups at the column, till we reach the bottom. Overall, we can count the number of groups which are significantly different (in Table 12A these number 15) to explain the significant F values in the ANOVA Tables. The Matric Tables also clarify how each interaction (Class by Medium) at each level does or does not produce significant differences, e.g. the interaction of class 4 with both MEM(K) and NEM(H) put these two groups on a different level of proficiency from most of the other groups since they are significantly different from the others. On the other hand, the interaction of class 4 with English Medium (E4) puts this group along with H7, K10, H10, E7 and E10. Thus it is not only a question of membership to the lowest class which singly decides significant differences, but the interaction with the second factor, i.e. medium of instruction.

In the light of the results in Analysis 5.6.2 we will modify the general statements made at the end of Analysis 5.6.1 and provide more detailed observations for the rejection or acceptance of H_o5.1.

I. School : NEM(K)

1. Present and past progressive : H_o5.1 is rejected for the pairs K4:K7, K4:K10 which are significantly different at p.05 and p.01 respectively. H_o4 is accepted for the K7:K10 comparison.

2. Present and past perfect : H_o5.1 is rejected for the K4:K10 comparison, but not for the pairs K4:K7, K7:K10.

3. Simple past : H_o5.1 is rejected for all comparisons since each group is significantly different from each other.

4. 3rd Singular : H_o5.1 is rejected for the pair K4:K10 and accepted for the pairs K4:K7, K7:K10.

Summary : The null hypothesis can be rejected unambiguously only for the subtest simple past for all pairwise comparisons, and for the pair K4:K10 in all subtests. H_o5.1 is accepted for the pair K7:K10 except for simple past; and there is no total acceptance or rejection of H_o5.1 for the pair K4:K7.

II. School : NEM(H)

1. Present and past progressive : H_o5.1 is rejected for the pairs H4:H7, H4:H10 (p.01) but not for the H7:H10 comparison.

2. Present and past perfect : H_o5.1 is rejected for the pairs H4:H10, H7:H10 (p.05). H_o is accepted for the H4:H7 comparison.

3. Simple past : H_o5.1 is rejected for the pairs H4:H7, H4:H10 (p.01) and H7:H10 (p.01).

4. 3rd Singular : H_o5.1 is rejected for the single pair H4:H10 (p.01) and accepted for all other comparisons.

Summary : There is a remarkable consistency in the performance scores in all subtests for both NEM(K) and NEM(H) (see also Table 13A below). The results are identical with only one exception - while K7 and K10 are significantly different only in simple past, H7 and H10 are significantly different in simple past and perfective aspect.

III. School : EM

1. Present and past progressive : H_o5.1 is accepted for all pairwise comparisons since there are no significant differences.

2. Present and past perfect : H_o5.1 is rejected only for the pair E4:E10 ($p<.05$).

3. Simple past : H_o5.1 is rejected for E4:E10 ($p<.05$).

4. 3rd Singular : H_o5.1 is again rejected only for the pair E4:E10 ($p<.01$).

Summary : In all the subtests, there are no significant differences between the lowest group (E4) and the next intermediate group (E7) nor between the latter and the next higher group (E10). This indicates the closeness of the groups in terms of proficiency, unlike the NEM groups which show a wider dispersion. Only E4 is significantly different from the highest group E10 in the English medium school.

The results demonstrate the complex interactional effects of grammatical categories, medium of instruction and class. There is no single criterion for rejecting H_o5.1 in interactional results.

A summary table based on Tables 12 (A-D) is given below to look at the significant and non-significant differences that emerge for each subtest:

TABLE 13 Summary Results of Pairwise Comparison
Factor : Class

	Pairs	Prog.	Perf.	S.Past	3rd Sing.
NEM	K4:K7	S	NS	S	NS
	H4:H7	S	NS	S	NS
	E4:E7	NS	NS	NS	NS
NEM	K7:K10	NS	NS	S	NS
	H7:H10	NS	S	S	NS
	E7:E10	NS	NS	NS	NS
NEM	K4:K10	S	S	S	S
	H4:H10	S	S	S	S
	E4:E10	NS	S	S	S

Total : NS = 18
S = 18

In the above table, the pattern of significant difference is as follows:

NEM groups : Each of the pairs K4:K7, H4:H7 show significant differences in the progressive and the simple past, but not in perfective aspect or 3rd singular ('late acquired' categories). Each of the pairs K4:K10, H4:H10 have significant differences in all four subtests. Each of the pairs K7:K10, H7:H10 have significant differences in simple past and non-significant differences in other subtests except in the perfective aspect (H7:H10).

EM groups : E4:E7 and E7:E10 show non-significant differences, but E4:E10 have significant differences. The results again reveal some consistent pattern of significant differences in both NEM and EM groups; it appears that the gap between one class and another in the EM school is not as great as that in NEM schools. This can be interpreted as a higher rate of learning in the EM school.

Since there are equal numbers for significant and non-significant differences, $H_o 5.1$ can neither be accepted nor rejected as a general statement applicable for each pair for each subtest. The results are inconclusive; they again demonstrate the complex interactions of class by medium of instruction by grammatical category.

However, the pairwise comparisons do not mean there are no movements up the IL continuum between one class and the next. A return to Table 10 gives us a clear indication of progress with the passage of time; but the progress or the differences may not be significant enough to reach the required t' level which will show up in the Scheffe tests.

5.7. Variability due to Medium of Instruction

In the previous section we have seen that different patterns emerge for the NEM and EM groups in their performances in the tense and aspect system in English. In this part of our investigation we will look into the NEM:EM distinction as another possible source of variation, based on the theoretical consideration , in 2.1. Variation attributed to medium of instruction could be seen in quantitative terms, i.e. calculations based on quantified performance scores.

For this investigation we need to state the null hypothesis as:

H_o5.2.1. There is no significant difference in the means of performance scores of learners in NEM(K), NEM(H) and EM schools in the acquisition of the English tense and aspect system.

It is also considered profitable to examine qualitative differences, i.e. the differences in error-types, and the use of the different grammatical categories, in the NEM:EM groups. While the use of the correct form/grammatical category will be tested by H_o5.2.1, its function will be stated as a working hypothesis in H5.2.2 below.

H5.2.2. There are qualitative differences in the error-types and variants in the interlanguages of NEM(K), NEM(H) and EM in the use of 3rd singular and simple past.

Analysis 5.7.1. Calculation of Percentages of Performance Scores for NEM(K), NEM(H) and EM

Percentage of correct use for each of the tense and aspect distinction were calculated; results are given in Table 14 below:

TABLE 14

Group Ranges of correct use at 20% Intervals.

	Pres.Progressive			Pst.Progressive			Pres.Perfect		
	K	H	E	K	H	E	K	H	E
1. 0-19	3.3	16.7	0.0	26.3	16.7	0.0	56.7	43.3	0.0
2.20-39	13.4	6.6	0.0	16.7	13.3	0.0	26.7	26.7	0.0
3.40-59	26.6	3.4	0.0	13.3	10.0	0.0	16.6	3.3	6.7
4.60-79	30.0	26.6	3.3	23.4	23.3	3.3	0.0	10.0	26.6
5.80-100	26.7	46.7	96.7	23.3	36.7	96.7	0.0	16.7	66.7

	Past Perfect			Simple Past			3rd Singular		
	K	H	E	K	H	E	K	H	E
1. 0-19	60.0	33.3	0.0	33.3	33.3	0.0	56.7	70.0	0.0
2.20-39	3.3	36.7	0.0	20.0	16.7	3.3	16.6	13.3	3.3
3.40-59	26.7	0.0	13.3	13.0	23.3	0.0	20.0	0.0	6.7
4.60-79	10.0	13.3	20.0	23.3	3.4	20.0	6.7	3.4	23.3
5.80-100	2.1	16.7	66.7	3.4	23.3	76.7	0.0	13.3	66.7

Results:

Progressive Aspect : NEM(K) and (H) are spread on all the five ranges 0-19 to 80-100, while EM groups are found only in the two highest ranges from 60-100. All 3 groups in EM therefore have high scores.

Perfect : There is an inverse pattern for NEM(K) and EM : the greatest number of students are in the 0-19 range in the Present and Past Perfect, and none reached the highest range 80-100 from the NEM(K) groups. The opposite is true for Em - no one scored lower than 40%; the greatest percentages are at the 80-100 range. NEM(K) spreads through all 5 levels with the higher percentages on the 0-19, 20-39 ranges.

Simple Past : Both NEM(K) and (H) have 33.3% subjects in level 5 but an inverse pattern again for levels 1 and 2. EM groups are concentrated at the highest range and are least in the 20-39 range.

3rd singular : Again NEM(K) and (H) have the greatest number of subjects at level 5; while NEM(K) did not reach level 1, NEM(H) has 13.3% of subjects at this level. EM follows the same pattern as in the other subjects in the increasing levels of proficiency.

Summary : All figures show better performances of EM groups over NEM(K) or (H).

Analysis 5.7.2. Analysis of Variance : Medium of Instruction as Factor

ANOVA (as in Analysis 5.6.2.)

Results

In all the four ANOVA Summary Tables 11 (A, B, C and D) in the previous section (5.6.2) the F-values under the heading 'Medium(are highly significant at p.01 level. The values are:

TABLE 15 F-Values for Tense and Aspect Factor : Medium of Instruction

	F
Progressive (Present and Past)	80.94
Perfect (Present and Past)	213.82
Simple Past	181.98
3rd Singular	117.75

p = 0.01 level of significance

On the basis of these high F-values H_o5.2.1 is rejected; there are significant differences based on the factor medium of instruction for all the tense and aspect categories.

Analysis 5.7.3. S-tests for Comparisons of Group Means

Scheffe tests of significance (as in Analysis 5.6.3)

Results

Table 16 (based on Tables 11 A-D) below gives a summary of the significant and non-significant differences for pairs which belong to the same class but different schools.

TABLE 16 Summary Results of Pairwise Comparison
Factor : School

Pairs	Prog.	Perf.	S. Past	3rd Singular
K4:H4	NS	NS	NS	NS
K4:E4	S	S	S	S
H4:E4	S	S	S	S
K7:H7	NS	NS	NS	NS
K7:E7	S	S	S	S
H7:E7	S	S	S	S
K10:H10	NS	NS	NS	NS
K10:E10	NS	S	S	S
H10:E10	NS	NS	S	S

Total : S = 21
NS = 15

For all the classes (4, 7, 10) in the two NEM(K) and (H) there are no significant differences.

This indicates that the two NEM schools, though they follow two different syllabuses, are almost at the same levels of proficiency in each class. They both start in more or less the same way (class 4) and end at about the same level of proficiency (class 10) at the end of their school education in English (specifically, the tense and aspect system). For NEM comparisons H_o 5.2.1 is accepted.

Comparisons between either K or H with E again show consistency: there are significant differences between K or H and E, for all three classes but for these exceptions: Subtests

Progressive aspect H7:E7, K10:E10, H10:E10 and subtest perfective aspect H10:E10. The exceptions present mixed results, but in general we can reject the null hypothesis for the NEM(K or H) and EM comparisons since there are more significant differences.

As mentioned in section 5.6.3, the columns and the rows in the Matrix Tables 12 (A-D) are arranged in ascending orders from left to right, and from top to bottom. A glance in any of tables show that except for perfective aspect, all the EM classes are on the extreme right ends of the columns and on the lowest rows. In other words, the EM groups perform better than the NEM groups in tense and aspect. This is in favour of the formal and informal learning in English medium schools as against the formal learning environment in NEM schools.

5.7.4. Variability in Error-types in NEM(K), NEM(H) and EM Groups

The second null hypothesis in this section states that there are no differences in the error-types and the use of tense by NEM and EM schoolchildren.

So far, data for all calculations was based on the occurrences of target-like tense and aspect features. Quantitative differences have been revealing in showing the acquisition of the tense and aspect distinction based on order of accuracy, and showing differences between classes and school types. Accuracy data however do not show how and why the groups differ. These two questions deserve emphasis for reasons which will emerge in later sections. At this point it is necessary to stress that there is a need to find answers to these questions in L2 acquisition studies dealing with group comparisons.

Differences in the use of the 3rd. singular and simple past in this section will be based on performances in the picture-based, describe the actions (henceforth PD) task. There are valid reasons for this decision:

The stress is on use in a communication task which is very near spontaneous speech, rather than on routine morphological inflections such as the discrete-point test. The latter is also restrictive because it allows only one possible answer since there

is only one blank space to be filled. The picture description task on the other hand gives ample freedom for the learners to produce their own idiosyncratic forms while controlling the contexts for the 3rd Singular and simple past.

The description task however has its own limitations; we had not been able to formulate contexts to elicit the use of present or past perfect, hence these are not dealt with here. Though it was possible to elicit the progressive form, time and labour involved made us decide otherwise. The second reason for not eliciting progressive aspect will be evident at the end of this section.

Analysis 5.7.4.1. Error Analysis : 3rd Singular

Study of the distribution of variants and error-types was made for each subject in each group based on the transcription of recorded tapes. Percentages of different variants were calculated for each group. The results are presented in Table 17 below:

TABLE 17 Distribution of Variants : 3rd Singular

	CORRECT	—— E R R O R - T Y P E S AND V A R I A N T S					
Columns	1	2	3	4	5	6	7
	3rd Sing.	Pres.Prog.	Base	V +ing	is+v	Nouns	Others
NEM(K)							
K4	0.0	7.0	65.0	14.0	5.5	6.5	2.0
K7	6.5	33.0	32.0	20.5	6.5	-	1.5
K10	8.0	80.0	3.5	8.5	-	-	-
Total	14.5	120.0	100.5	43.0	12.0	6.5	3.5
	4.83%	40%	33.5%	14.3%	4%	2.16%	1.16%
NEM(H)							
H4	0.0	0.0	63.0	27.5	0.0	7.0	2.0
H7	16.5	38.5	29.5	6.0	4.5	0.0	5.0
H10	50.5	48.5	1.0	0.0	0.0	0.0	0.0
Total	67.0	87.0	93.5	33.5	4.5	7.0	7.0
	22.5%	29%	31.16%	11.1%	1.5%	2.3%	2.3%
EM							
E4	60.0	5.0	35.0	0.0	0.0	0.0	0.0
E7	95.0	3.5	1.5	0.0	0.0	0.0	0.0
E10	100.0	0.0	0.0	0.0	0.0	0.0	0.0
Total	255.0	8.5	36.5	0.0	0.0	0.0	0.0
	85%	2.83%	12.16%				

Column 1 is the percentage of use of the correct form for each group. The total percentages for NEM(K) and NEM(H) when compared with EM at 85% show a baffling discrepancy if we had stopped only at the accuracy data in column 1. The second column explains part of the discrepancy: both NEM(K) and (H) have higher percentages at the variant 'Present Progressive', while EM percentage in this column falls to 2.83%. Notice especially the very high percentage of K10 (80%) and the pattern of increasing figures from K4 through K7 to K10 in column 2, but the almost static state of 3rd Singular. The results indicate the substitution of present progressive for 3rd Singular by NEM(K) schoolchildren. On the other hand, EM children show more target-like use of 3rd Singular right from class 4; only 2.83% of the 30 subjects in EM show some confusion about the use of simple present and present progressive.

Another interesting feature to note in our NEM:EM comparison is the number of columns (i.e. variants) - EM are spread only in three columns 1-3, while NEM are spread out across seven columns. Presence of NEM(K) and (H) in columns 4 (v + ing) and 5 (is + v) indicate the preference of NEM groups for present progressive but in classes 4 and 7 the full progressive is + v + ing has not emerged yet in the spontaneous production. The column marked 'Nouns' though with very few percentages of 2.16 (K) and 2.33 (H), indicate a communicative strategy by some of the 8-9 year olds - substitute a noun to describe action, e.g. "Everyday Ram radio". Possibly they have not learned the verb yet or it may not be readily available in spontaneous speech.

Analysis 5.7.4.2. Error Analysis : Simple Past

As for 3rd Singular, we have classified the variants found in each subject's recorded descriptions of action, each description beginning "Last Monday ..." to provide the context for simple past tense. Percentages were again calculated and presented group-wise in the table below:

TABLE 18 Distribution of Variants : Simple Past

	CORRECT. 1	ERROR - TYPES AND VARIANTS 2	3	4	5	6	7	8
	Sim.Pst	Pst.Prog	Base	Pst.Per	v+ing	was+v	had+v+ing	Nouns
NEM(K)								
K4	0.0	5.5	73.75	0.0	16.25	3.5	0.0	1.0
K7	4.5	50.5	21.5	0.0	23.5	0.0	0.0	0.0
K10	20.5	62.0	2.0	3.0	5.5	0.0	10.0	0.0
Total	25.0	119.0	97.25	3.0	42.25	3.5	10.0	1.0
	8.33%	39.33%	32.4%	1%	14%	1.16%	3.33%	0.33%
NEM(H)								
H4	0.0	2.5	56.0	0.0	32.5	0.0	0.0	6.5
H7	25.5	41.0	27.5	0.0	6.0	0.0	0.0	0.0
H10	49.5	41.5	5.0	3.0	0.0	1.0	0.0	0.0
Total	75.0	85.0	88.5	3.0	38.5	1.0	0.0	6.5
	25.15%	28.33%	29.5%	1%	12.83%	0.33%		2.16%
EM								
E4	73.0	8.5	18.5	0.0	0.0	0.0	0.0	0.0
E7	81.0	12.5	6.5	0.0	0.0	0.0	0.0	0.0
E10	100.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total	254.0	21.0	25.0	0.0	0.0	0.0	0.0	0.0
	84.66%	7%	8.33%					

The results are comparable to those found for 3rd Singular except for the presence of two more columns (past perfect) and (had + v + ing) in NEM(K) and (H). There is the same kind of distributions between simple past and past progressive in the two NEM groups, with a slightly higher percentage for K10 on the use of the correct form. One subject in K10 used a curious had + v + ing form in describing past actions. Such forms are not found in EM, even in class 4. The general picture that we get for the NEM and EM learners can be seen in the figures below:

Figure 6 Distributions and Directions of Error types.3rd.Singular.

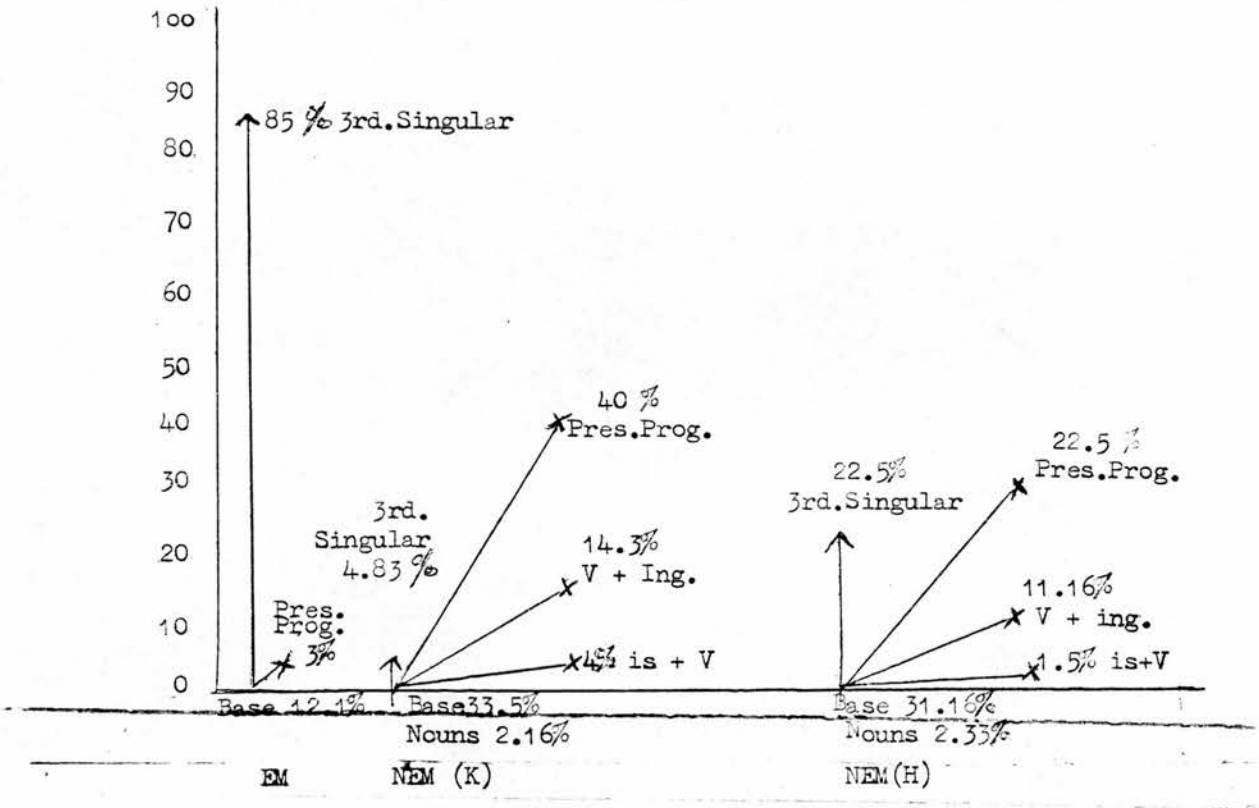
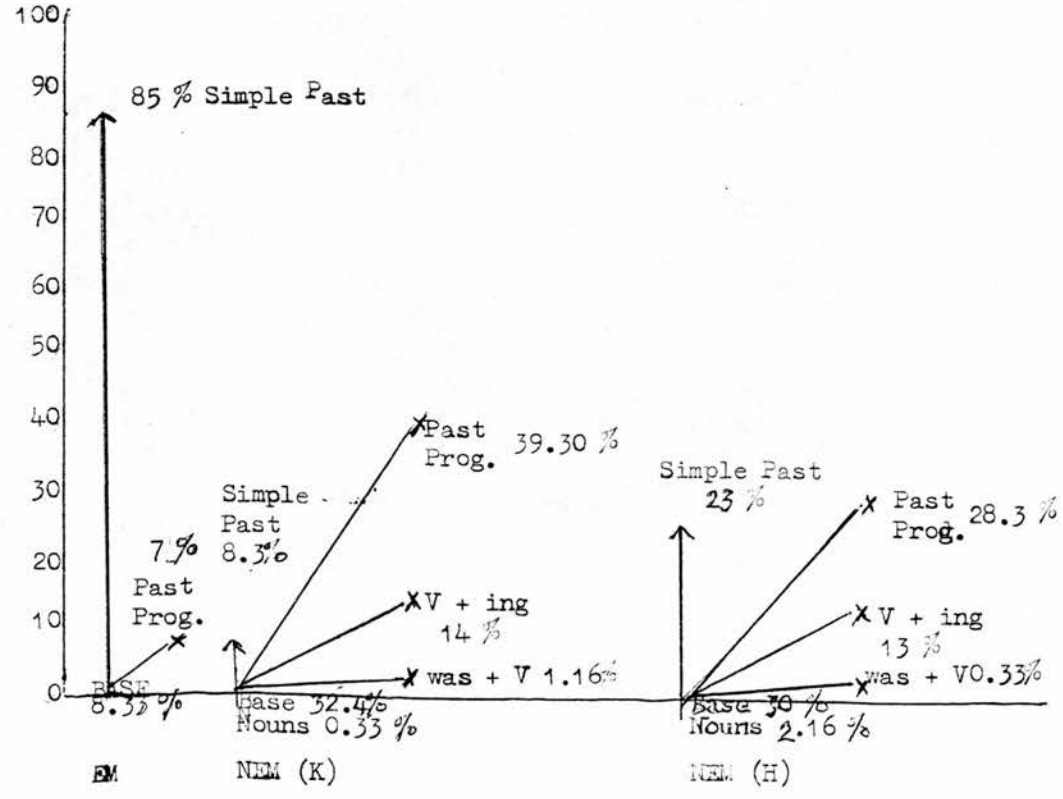


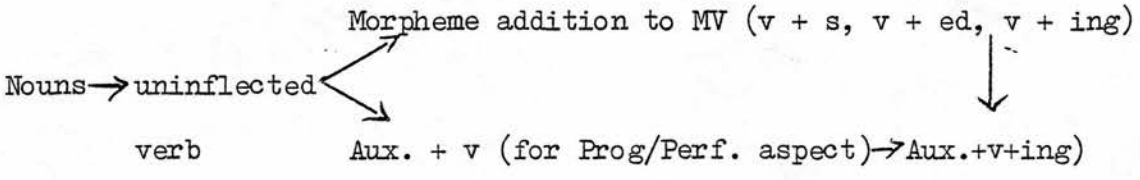
Figure 7.Distribution and Direction of Error types.Simple Past.



The figures reveal different patterns for NEM and EM, which emphasise the qualitative differences in the use of tense and aspect. In NEM there seems to be a preference for the progressive forms rather than the simple present (3rd singular) or simple past forms (notice the divergence of the arrows to the right of the vertical line).

In the context of the ILs of increasing complexity (here the marking of inflectional morphemes in the main verb and the use of the Aux. in cases which diverge to the progressive or past perfect), the diagrams reveal interesting patterns. In both 3rd singular and simple past, EM learners seem to move direct from the uninflected base form to the target forms with the right 's' or 'ed/d/t' morphemes suffixed to the verb. There are no confusions (except for a minority) in the use of simple tense (-aspect) in contexts which call for such uses, in spontaneous speech. In the case of NEM there are problems in the simple vs progressive distinctions.

Lastly, though 'nouns' is present only in NEM(K) and (H), it may be possible that at a very early stage (not captured in our study) EM learners too used nouns in lieu of verbs which they had not learned yet, following the general 'naming stage' of babies in L1 studies. The process of learning would therefore be:



Summary : Investigation of the variants and error-types in 3rd singular and simple past shows qualitative differences between NEM and EM, differences which would not have been observed had we looked at accuracy data alone. Qualitative differences help explain the performance scores (percentages of accuracy), e.g. in section 5.5.4 we had recorded very low scores by NEM(K) and (H) in 3rd singular. It would appear that in spite of years of learning English, there is no evidence of that learning. In IL terms, it appeared as if there is no development or increase in complexity. This goes against the whole concept of ILs as dynamic systems. This section clarifies the situation: there has been movement, though the

movement may not necessarily be towards the expected target language forms (measured in quantitative data).

Data from spontaneous speech also help us understand the different kinds of ILs nurtured in different learning situations; the acquisition or non-acquisition of some forms, and the rate of development of learners in these different macro-environments. There are other interesting hypotheses and explanations based on qualitative differences which we will explore later.

5.8. Variability due to Differences in Tasks

In section 4.2 we have discussed some of the methodological and theoretical issues involved in types of elicitation techniques and the kind of data that they yield. Questions on synchronic variability raised by Lococo (1976), Tarone (1979, 1983) and Bialystok (1981a) are still unresolved for the most part, yet they are essential for a better understanding of L2 acquisition and the nature of interlanguage. We have an added interest since we want to see if the NEM:EM distinction will surface in the students' performances in different types of tests, for two areas of tense and aspect: 3rd singular and simple past. These two areas are especially chosen because they are taught early, they are 'easy' rules to learn with straightforward pragmatic and semantic notions (Krashen 1981) and are less stable than the progressive forms, i.e. it is probable that 3rd singular and simple past will evidence more variability according to different tasks characterised by a set of features:

Task 1	Task 2	Task 3
Describe the action	Fill in the blanks	Multiple choice
Oral Production	Written Production	Written Recognition
Spontaneous	Delayed	Delayed
Focus on communication	Focus on form	Focus on form

The null hypotheses we want to test here are

H_o5.3.1 There is no significant difference in the performance scores of the learners in NEM and EM schools in three different tasks for 3rd singular

H_o5.3.2 There is no significant difference in the performance scores of the learners in NEM and EM schools in three different tasks for simple past.

Analysis 5.8.1. Calculation of Percentages of Performance Scores in Three Tasks for NEM(K), NEM(H) and EM

Distribution of subjects from the three schools according to percentages of performance scores at 20% intervals were calculated in the three different tasks. Results are given below:

TABLE 19.A

Distribution of subjects from NEM(K),NEM(H) and EM in Task 1,Task 2,Task 3: 3rd Singular.

	TASK I			TASK 2			TASK 3		
	NEM (K)	NEM (H)	EM	NEM (K)	NEM (H)	EM	NEM (K)	NEM (H)	EM
1. 0-19	86.7	70.0	0.0	56.7	70.0	0.0	20.0	33.3	0.0
2. 20-39	13.3	13.3	3.3	16.6	13.3	3.3	26.6	3.4	0.0
3.40-59	0.0	3.3	13.4	20.0	0.0	6.7	6.7	10.0	0.0
4. 60-79	0.0	6.7	20.0	6.7	3.4	23.3	10.0	0.0	3.3
5. 80-100	0.0	6.7	63.3	0.0	13.3	66.7	36.6	53.3	96.7

Results : 3rd singular

K4, K7 and K10 combined as a single group NEM(K), show variable performances in the three tasks; no student reached levels 3-5 in the oral task; the maximum percentage is in the lowest level (1), indicative of very poor performance by subjects in NEM(K). In task 2 there are fewer subjects (56.7%) in level 1 and a spread over levels 2, 3 and 4 (16.6, 20 and 6.7 respectively). Still better performances are found in task 3: subjects are distributed in all 5 levels, the highest number (36.6) being on the highest level 5. On level 1 there is a great reduction from task 1, 2 to task 3 (86.7, 56.7, 20.0).

NEM(H) has an identical number of subjects (70%) at the lowest level 1 in task 1 and 2 with a decrease in task 3 (33.3). Unlike NEM(K) groups, NEM(H) groups spread out on all five levels in the three tasks. As in NEM(K) we can locate improvements by looking at the highest level 5 also, in all three tasks: the improvement is from 6.7 to 13.3 to 53.3 in tasks 1, 2 and 3 respectively.

The three groups in EM show a different pattern when compared with NEM(K) and (H) groups; there are no subjects in the lowest level in all three tasks. There are almost identical percentages of subjects in tasks 1 and 2 with a very slight improvement in level 5 in task 2, and a much better percentage in task 3.

Summary Results

(1) There are better performances by subjects in tasks 3, 2 and 1 (in that order).

(2) In tasks 1 and 2 the maximum percentages of NEM subjects are on level 1, while EM subjects are mostly at the highest level 5.

(3) Comparisons between the percentages of subjects of NEM(H) and EM at level 5 show improvements in tasks 1, 2 and 3: the increase is from 6.7, 13.3 and 53.3 for NEM(H) and 63.3, 66.7 and 96.7 for EM. NEM(K) are equally distributed (0.0) for tasks 1 and 2 and a much higher percentage (36.6) in task 3.

Simple Past

TABLE 19B Distribution of Subjects from NEM(K), NEM(H) and EM in Task 1, Task 2, Task 3 : Simple Past

			TASK 1			TASK 2			TASK 3		
			NEM (K)	NEM (H)	EM	NEM (K)	NEM (H)	EM	NEM (K)	NEM (H)	EM
L	1.	0-19	80.0	56.7	0.0	33.3	33.3	0.0	20.0	26.7	6.7
E	2.	20-39	19.7	16.6	0.0	20.0	16.7	3.3	30.0	13.3	0.0
V	3.	40-59	3.3	13.4	3.3	13.4	23.3	0.0	0.0	10.0	3.3
E	4.	60-79	0.0	3.3	36.7	23.4	3.4	20.0	6.7	23.3	0.0
L	5.	80-100	0.0	10.0	60.0	3.3	23.3	76.7	43.3	26.7	90.0
S											

In NEM(K) the distribution of subjects is very similar to what we have found in 3rd singular, with slight improvements seen in the smaller figures in the lowest level (1) and slight rises in level 5 in tasks 2 and 3. The same can be said for NEM(H) except for the surprisingly lower percentage at the highest level in task 3. EM shows some anomaly in task 3: there are 6.7 and 3.3 subjects at levels 1 and 3 respectively, while there are no subjects at these levels in 3rd singular.

Summary Results

(1) Except for the slight discrepancy in EM pointed out above, the overall distribution shows that subjects perform better in tasks 1, 2 and 3, in that order

(2) The patterns of distribution are different for NEM and EM

(3) NEM(K) shows the highest improvement in task 3 with a rise of 43.3% between tasks 1 and 3

(4) Comparisons between 3rd singular and simple past figures show better performances in simple past.

Analysis 5.8.2. Calculation of Percentages of Performance Scores in Three Tasks for Classes 4, 7 and 10

This analysis is similar to the previous one, except that the distribution now is class-wise than school-wise, as will be evident in the tables below:

TABLE 19.C

Distribution of subjects from Classes 4,7 and 10 in Task 1, Task 2, Task 3: 3rd Singular.

	TASK 1			TASK 2			TASK 3		
Classes--	4	7	10	4	7	10	4	7	10
LEVELS 1. 0-19	66.7	50.0	40.0	66.7	33.3	26.7	53.3	3.3	0.0
2. 20-39	3.3	16.7	10.0	3.3	26.7	3.3	13.4	6.7	3.3
3. 40-59	10.0	3.3	3.3	6.7	3.3	20.0	0.0	6.7	3.3
4. 60-79	16.6	3.3	6.7	20.0	6.7	10.0	3.3	13.3	3,3
5. 80-100	3.3	26.7	40.0	3.3	30.0	40.0	30.0	70.0	86.7

TABLE 19.D

Distribution of subjects from Classes 4,7 and 10 in Task 1, Task 2, Task 3: Simple past.

	TASK I			TASK 2			TASK 3		
Classes--	4	7	10	4	7	10	4	7	10
LEVELS 1. 0-19	63.3	50.0	23.3	60.0	6.7	0.0	43.3	0.0	6.7
2. 20-39	3.3	10.0	20.0	10.0	30.0	16.7	26.7	16.7	3.3
3. 40-59	23.4	10.0	10.0	0.0	26.7	13.3	6.7	3.3	3.3
4. 60-79	0.0	13.3	3.3	20.0	0.0	23.3	0.0	16.7	13.4
5. 80-100	10.0	16.7	43.4	10.0	36.0	46.7	23.3	63.3	73.3

Results : 3rd Singular

In Table 19C at the highest level, 5, classes 4 and 10 show no differences in tasks 1 and 2, but there are greater percentages of subjects in task 3 (30.0 and 86.7 in classes 4 and 10 respectively). A better example of improvement in the three tasks is shown by class 7, with rises from 26.7 (Task 1) to 30.0 (Task 2) and 70.0 in Task 3.

In level 5 of Table 19D (Simple past) class 4 again no changes in tasks 1 and 2, but greater improvement (23.3) in task 3. Class 7 shows dramatic increases from 16.7 to 36.0 to 63.3 in tasks 1, 2 and 3 respectively. Subjects of class 10 also show marked improvement in tasks 1, 2 and 3 (43.4, 46.7 and 73.3 respectively).

Summary Results

The figures in the highest level (5) in Tables 19C and D substantiate the fact that there are differences in the performance scores of subjects in the three different tasks. This confirms the findings in 5.8.1 which show better performance scores by subjects of the three different schools in the multiple choice test, followed by performances in discrete point test. Detailed discussions on the type of task as a source of variability in L2 will be taken in Chapter 7.

Analysis 5.8.3 Calculation of Means of Performance Scores

Means of performance scores were calculated for each group in each of the three tasks for 3rd singular and simple past. Results are presented in Tables 20 (A and B)and graphically displayed in Figures 8 - 15. The most identical patterns between 3rd singular and simple past for each task and the lines representing the NEM:EM distinctions are self explanatory (notice the wider spread between 4 and 10 in NEM in the two written tasks).

TABLE 20.A

Means of Performance Scores in three Tasks: 3rd Singular.

Groups-	K4	K7	K10	H4	H7	H10	E4	E7	E10
Task 1.	0.0	6.5	8.0	0.5	16.5	40.5	60.0	95.0	100.0
Task 2.	1.8	29.6	37.4	0.0	17.9	49.3	60.6	88.8	100.0
Task 3.	13.5	70.5	77.0	3.5	81.5	98.5	94.5	99.5	100.0
	5.0	35.5	40.8	1.33	38.6	62.7	71.7	94.4	100.0

Task 1 (Picture discription)	36.33	
Task 2 (Fill-in-the Blanks)	42.82	50.03 (n=90)
Task 3 (Multiple choice)	70.94	

TABLE 20.B

Means of Performance Scores in three Tasks: Simple Past.

Groups-	K4	K7	K10	H4	H7	H10	E4	E7	E10
Task 1.	0.0	4.5	20.5	0.0	20.5	49.5	73.0	81.0	100.0
Task 2.	5.6	35.5	67.9	8.4	45.0	73.7	76.1	98.8	100.0
Task 3.	16.5	68.0	83.0	9.5	66.0	69.0	80.0	97.5	100.0
	7.36	36.0	57.13	5.96	43.83	63.0	76.3	92.4	100.0

Task 1 (Picture description)	38.77	
Task 2 (Fill-in-the Blanks)	56.77	53.57 (n=90)
Task 3 (Multiple choice)	65.16	

Figure 8. Means of Performance Scores in 3rd.Singular. Task 1 (P.D)

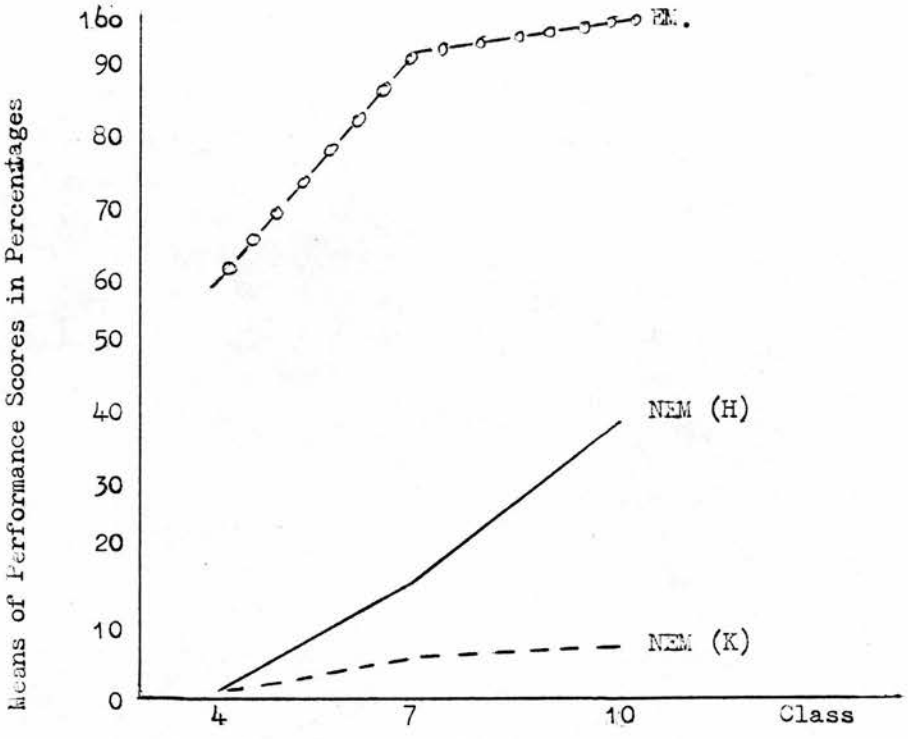


Figure 9. Means of Performance Scores in 3rd.SingularTask 2(F.B)

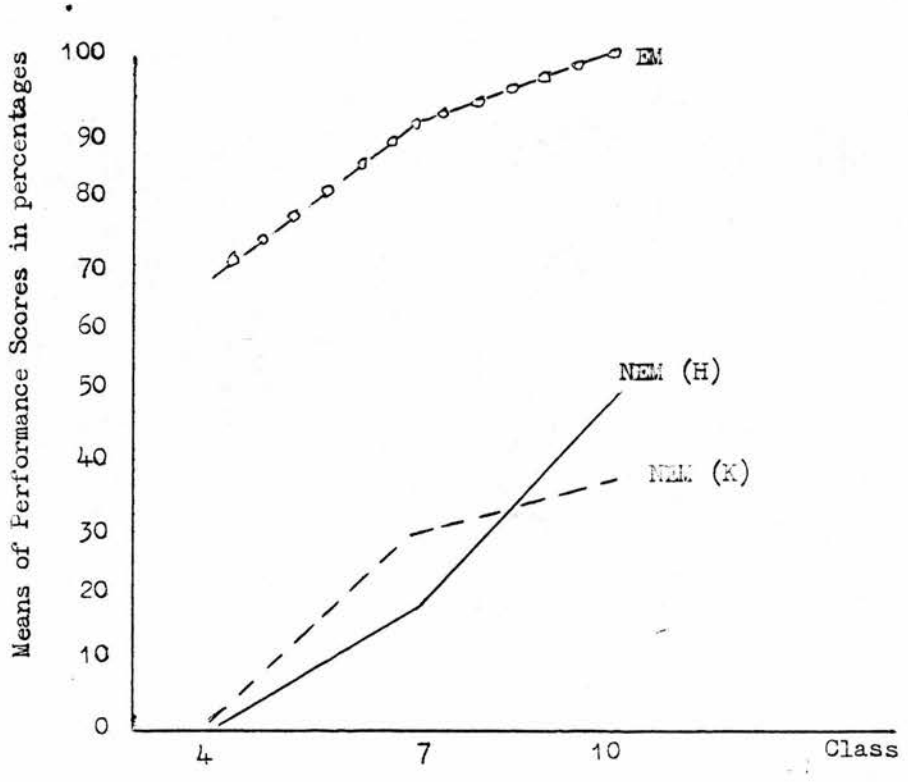


Figure 10. Means of Performance Scores in 3rd. Singular.Task 3.(M.C).

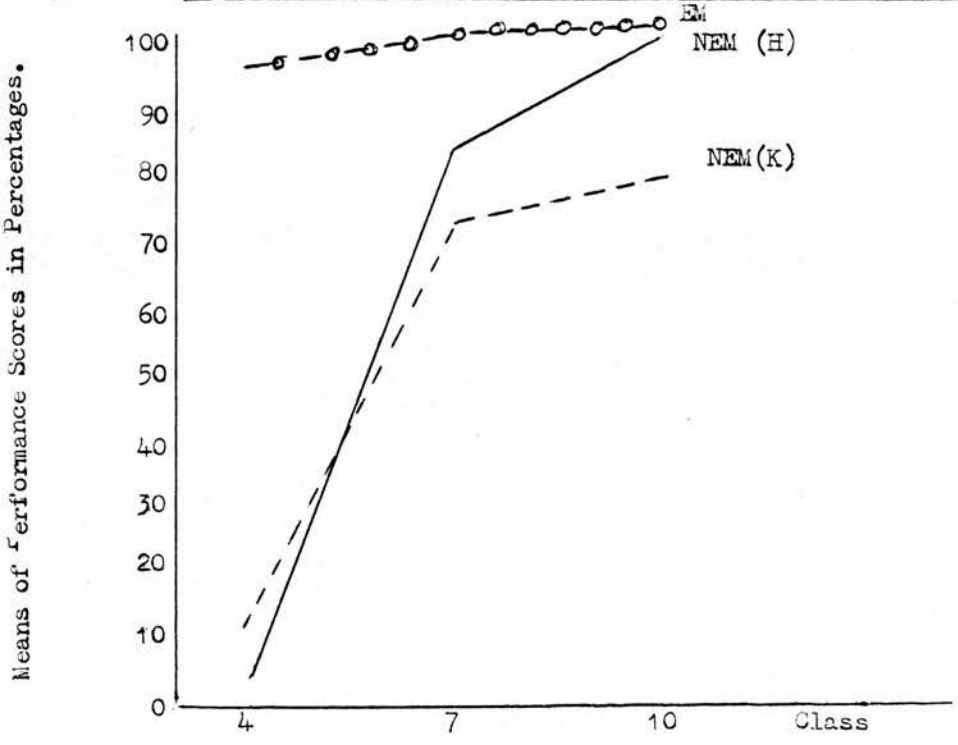


Figure 11.Means of Performance Scores in Simple Past.Task 1.(P.D).

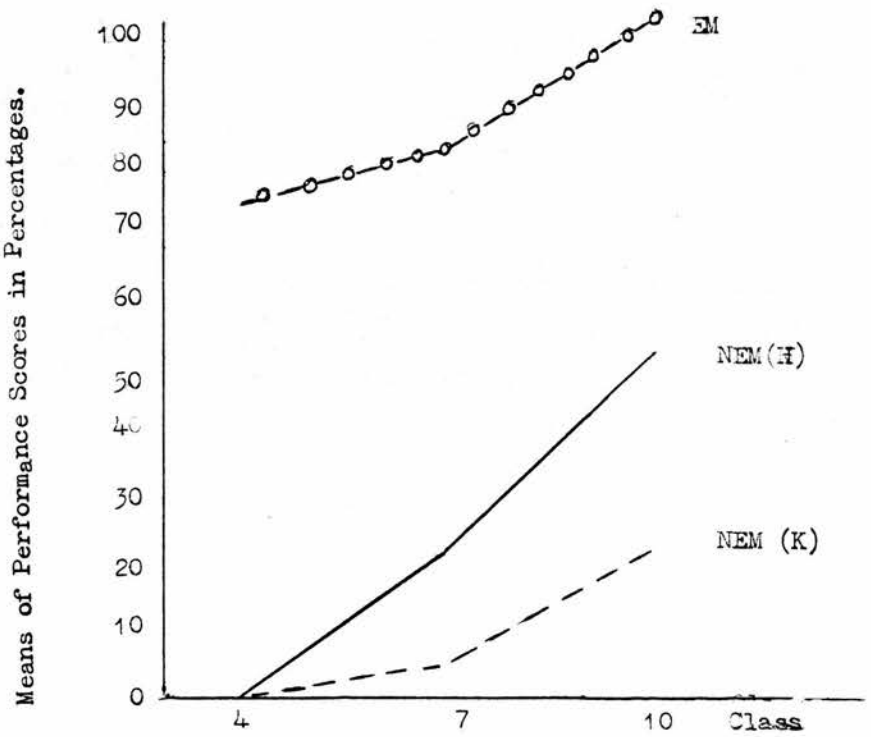


Figure 12. Means of Performance Scores in Simple Past.Task 2.(F.B.)

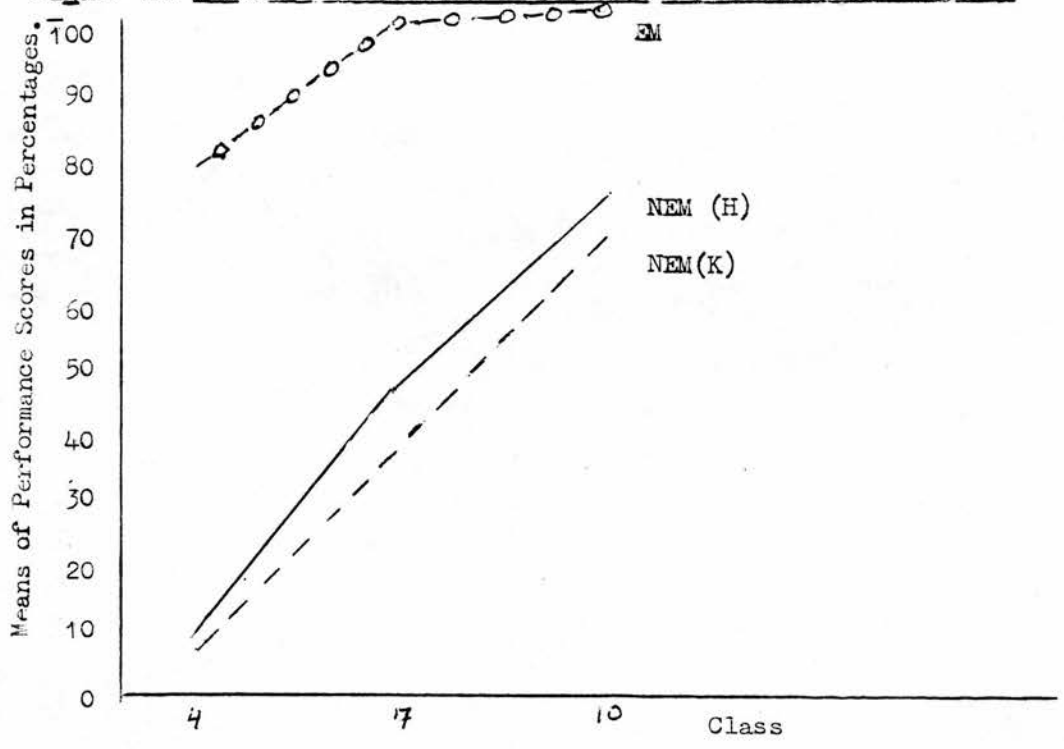
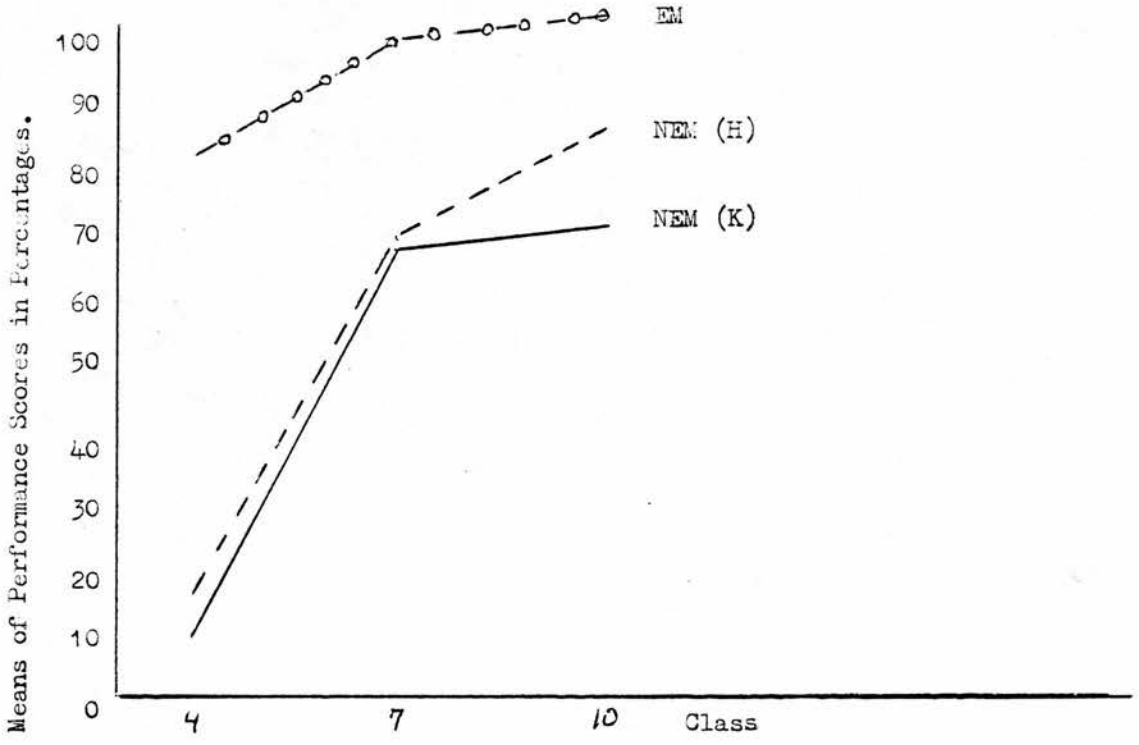


Figure 13. Means of Performance Scores in Simple Past.Task 3.(M.C.)



Means of Performance Scores for all three tasks.Differences in Medium.

Figure 14A. 3rd. Singular.

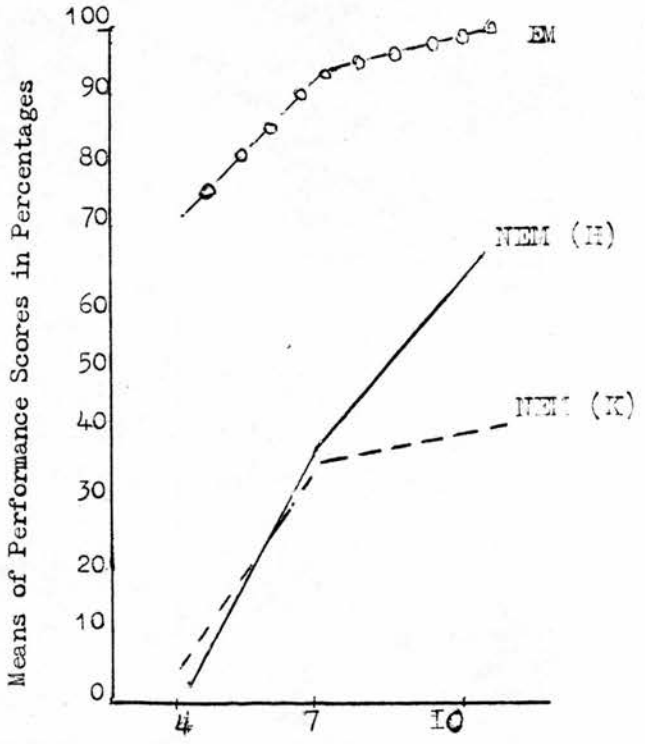


Figure 14B. Simple Past.

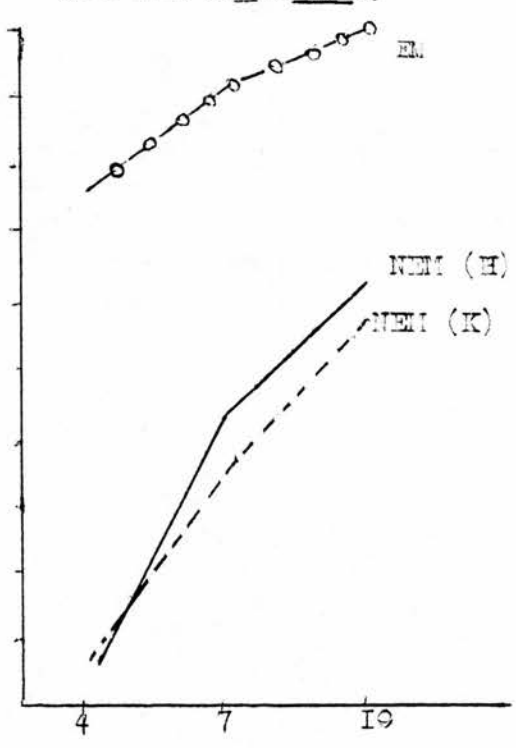


Figure 15A.Performance Scores for all three tasks.Differences in Class.

Figure 15A. 3rd.Singular.

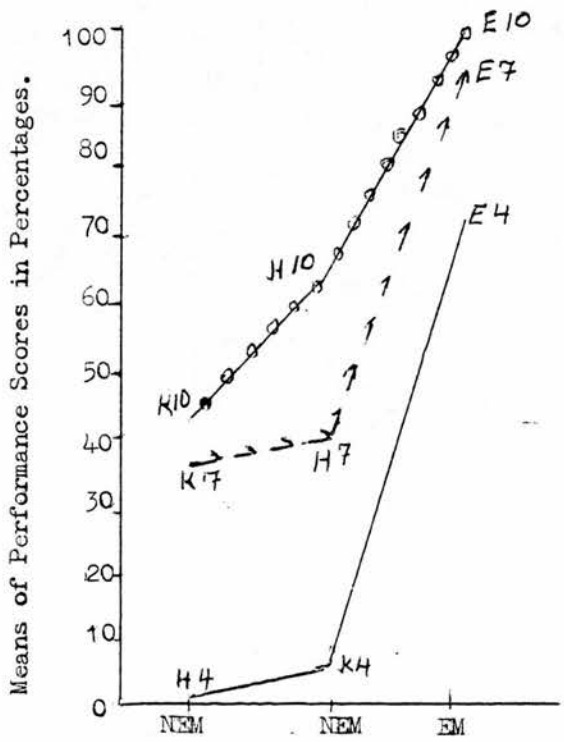
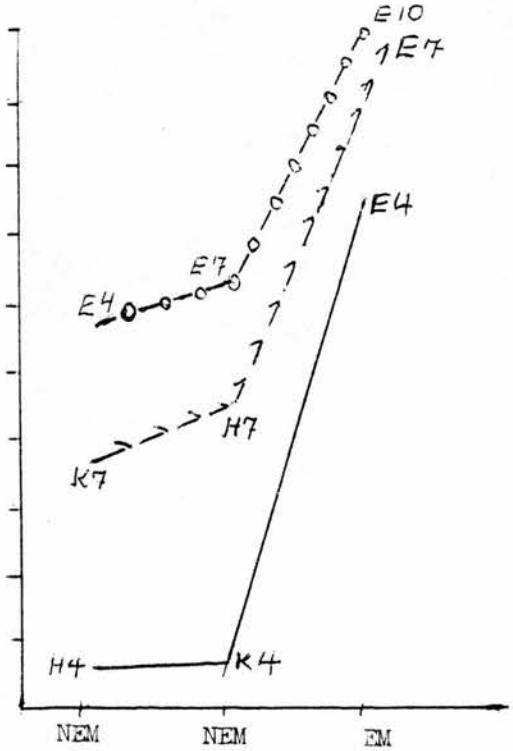


Figure 15B. Simple Past.



Analysis 5.8.4 Analysis of Variance : Task Differences as Factor

Analyses 5.6.1, 5.6.2 and 5.6.3 indicate variable performances according to the types of task. To find out whether the task-type variation is significant or not, ANOVA runs were again made, this time with three factors: medium of instruction, class and tasks (dependent factors). The 3 x 3 x 3 factorial design includes 20 items in Tasks 1 and 3 and 18 in Task 2, thus the total number of observations is 5,220 (20 x 2) x 90 = 3600 + (18 x 1) x 90 = 1620.

TABLE 21.A

ANOVA Summary for all three Tests: 3rd Singular

Source of Variation	Sum of Squares	DF	F
Mean	675900.300	1	1891.19
Medium of Instruction	204224.466	2	285.71
Class	83801.355	2	117.24
MC Interaction	9447.244	4	6.61
ERROR	28948.966	81	
Test	60926.822	2	163.67
Test by Medium Interaction	12349.711	4	16.59
Test by Class Interaction	7870.155	4	10.57
TMC Interaction	20476.044	8	13.75
ERROR	30151.933	162	

** p = 0.01 level of significance

The F value for the factor 'test' is 163.67 (p .00) for 3rd singular. Thus H_o5.3.1 is rejected. ANOVA results show that there are significant differences in the performance scores by learners as a function of task difference.

TABLE 21.B

ANOVA Summary for all three Tests: Simple Past.

Source of Variation	Sum of Squares	DF	F	Tail Prob.
Mean	774948.981	1	2525.81	0.000
Medium of Instruction	175976.762	2	** 286.78	0.000
Class	87150.362	2	** 142.03	0.000
MC Interaction	9663.125	4	* 7.87	0.000
ERROR	24851.7666	81		
Test	32722.407	2	** 53.80	0.000
Test by Medium Interaction	12122.414	4	** 9.97	0.000
Test by Class Interaction	8282.614	4	* 6.81	0.000
TMC Interaction	5900.029	8	2.43	0.000
ERROR	49264.533	162		

** p = 0.01 level of significance
* p = 0.05 level of significance

The F value for the factor 'task' is highly significant at 53.80 for simple past. This establishes beyond doubt that there are variable performances according to the type of tasks. Again H_o5.3.2 is rejected in favour of an alternative hypothesis that there are significant differences in learners' performances in the three tasks in simple past.

Analysis 5.8.5.1 S-tests for Comparisons of Group Means

In this section we will find out if patterns of variation according to the three tasks exist or not, i.e. that variation according to tasks is not random. Secondly, we will examine significant differences by computing post-hoc tests of comparisons based on the ANOVA output in section 5.8.4.

Scheffe tests were made on the group cell means other statistics in the ANOVA output. Results are in the tables below:

TABLE 22A. 3RD SINGULAR (PD) MEDIUM BY CLASS INTERACTION . TASK 1.

GROUPS		K4	H4	K7	K10	H7	H10	E4	E7	E10	
		00	05	65	80	165	405	600	950	1000	
K4	00		05	65	80	165	405	600	950	1000	K4
H4	05			65	80	165	405	600	950	1000	H4
K7	65				15	100	340	535	885	935	K7
K10	80					85	325	520	870	920	K10
H7	165						240	435	785	835	H7
H10	405							195	545	595	H10
E4	600								350	400	E4
E7	950									50	E7
E10	1000									-	E10

TABLE 22B. SIMPLE PAST (PD) MEDIUM BY CLASS INTERACTION . TASK 1.

		K4	H4	K7	H7	K10	H10	E4	E7	E10	
		00	00	45	205	205	495	730	810	1000	
K4	00			45	205	205	495	730	810	1000	K4
H4	00			45	205	205	495	730	810	1000	H4
K7	45				160	160	450	685	765	955	K7
H7	205					0	290*	525	605	795	H7
K10	205						290*	525	605	795	K10
H10	495							235	315	505	H10
E4	730								80	270	E4
E7	810									190	E7
E10	1000									-	E10

For Table 22 A. Calculated t value $p < .01 = 308$
$p < .05 = 267$

For Table 22 B. Calculated t value $p < .01 = 308$
$p < .05 = 266$

TABLE 22C 3rd Singular (FB) Medium by Class Interaction

GROUPS		H4 00	K4 18	H7 179	K7 296	K10 374	H10 493	E4 606	E7 888	E10 1000	
H4	00		18	179	296	374*	493	606	888	1000	H4
K4	18			161	278	356*	475	588	870	982	K4
H7	179				117	195	314	427	709	821	H7
K7	296					78	197	310	592	704	K7
K10	374						119	232	514	626	K10
H10	493							113	395	507	H10
E4	606								282	394	E4
E7	888									112	E7
E10	1000									-	E10

Calculated t value $p < .01 = 384$
$* p < .05 = 333$

TABLE 22D Simple Past (FB) Medium by Class Interaction

		K4 56	H4 84	K7 355	H7 450	K10 679	H10 737	E4 761	E7 988	E10 1000	
K4	56		28	299	394	632	681	705	932	932	K4
H4	84			271	366	625	653	677	904	916	H4
K7	355				95	324	382	406	633	645	K7
H7	450					229	287	311	538	550	H7
K10	679						58	82	309	321	K10
H10	737							24	251*	263*	H10
E4	761								227	239*	E4
E7	988									12	E7
E10	1000									-	E10

Calculated t value $p < .01 = 268$
$* p < .05 = 233$

TABLE 22E 3rd Singular (MC) Medium by Class Interaction

		H4 35	K4 135	K7 705	K10 770	H7 815	E4 945	H10 985	E7 995	E10 1000	
H4	35		100	670	735	780	910	950	960	965	H4
K4	135			570	635	680	810	850	860	865	K4
K7	705				65	110	240	280*	290*	295*	K7
K10	770					45	175	215	225	230	K10
H7	815						130	170	180	185	H7
E4	945							40	50	55	E4
H10	985								10	15	H10
E7	995									5	E7
E10	1000									-	E10

Calculated t value $p < .01 = 323$
$* p < .05 = 280$

TABLE 22F Simple Past (MC) Medium by Class Interaction

	H4 95	K4 165	H7 660	H10 660	K7 680	E4 800	K10 830	E7 975	E10 1000	
H4 95		70	565	565	585	705	735	880	905	H4
K4 165			495*	495*	521	635	665	810	835	K4
H7 660					20	140	170	315	340	H7
H10 660					20	140	170	315	340	H10
K7 680						120	150	295	320	K7
E4 800							30	175	200	E4
K10 830								145	170	K10
E7 975									25	E7
E10 1000									-	E10

Calculated t value $p < .01 = 517$
$*\ p < .05 = 449$

Summary of the above Tables:

Table 22.A 3rd Singular (Task 1.MC Interaction)

K4	H4	K7	K10	H7	H10	E4	E7	E10
K4	NS	NS	NS	NS	S	S	S	S
	H4	NS	NS	NS	S	S	S	S
		K7	NS	NS	S	S	S	S
			K10	NS	S	S	S	S
				H7	NS	S	S	S
					H10	NS	S	S
						E4	S	S
							E7	NS
								E10

Table 22.B Simple Past (Task 1.MC Interaction)

K4	H4	K7	H7	K10	H10	E4	E7	E10
K4	NS	NS	NS	NS	S	S	S	S
	H4	NS	NS	NS	S	S	S	S
		K7	NS	NS	S	S	S	S
			H7	NS	S*	S	S	S
				K10	S*	S	S	S
					H10	NS	S	S
						E4	NS	S*
							E7	NS
								E10

Table 22.C. 3rd Singular (Task 2.MC Interaction)

H4	K4	H7	K7	K10	H10	E4	E7	E10
H4	NS	NS	NS	S*	S	S	S	S
	K4	NS	NS	S*	S	S	S	S
		H7	NS	NS	NS	S	S	S
			K7	NS	NS	NS	S	S
				K10	NS	NS	S	S
					H10	NS	S	S
						E4	NS	S
							E7	NS
								E10

Table 22.D Simple Past (Task 2.MC Interaction)

K4	H4	K7	H7	K10	H10	E4	E7	E10
K4	NS	S	S	S	S	S	S	S
	H4	S	S	S	S	S	S	S
		K7	NS	S	S	S	S	S
			H7	NS	S	S	S	S
				K10	NS	NS	S	S
					H10	NS	S*	S*
						E4	NS	S*
							E7	NS
								E10

Table 22.E 3rd Singular (Task 3.MC Interaction)

H4	K4	K7	K10	H7	E4	H10	E7	E10
H4	NS	S	S	S	S	S	S	S
	K4	S	S	S	S	S	S	S
		K7	NS	NS	NS	S*	S*	S*
			K10	NS	NS	NS	NS	NS
				H7	NS	NS	NS	NS
					E4	NS	NS	NS
						H10	NS	NS
							E7	NS
								E10

Table 22.F Simple Past (Task 3.MC Interaction)

H4	K4	H7	H10	K7	E4	K10	E7	E10
H4	NS	S	S	S	S	S	S	S
	K4	S*	S*	S	S	S	S	S
		H7	NS	NS	NS	NS	NS	NS
			H10	NS	NS	NS	NS	NS
				K7	NS	NS	NS	NS
					E4	NS	NS	NS
						K10	NS	NS
							E7	NS
								E10

S =p.01 S* = p.05

S* = p.05 NS =Not significant

3rd Singular

The pattern of significant differences that merge are different in the three tables above. They are informative in that significant differences between groups vary according to the tasks. In the most stringent task 1 (Table 22A) significant differences begin in H10 and includes just the four best groups within the lines. In the easiest task (Table 22C) the lines extend to include K10, H7 and K7, excluding only the lowest groups K4 and H4. While only K10 has shown improvements in Tasks 2 and 3 (interpreted by its significant differences with K4 and H4, which are stable), three groups K7, H7 and K10 have improved in task 3.

Results of S-tests therefore are useful to display (i) shifts in the overall patterns of significant differences in the three tasks, (ii) shifts because of improvement by any particular group in the different tasks, (iii) shifts or exchange of places between particular pair(s) of groups (e.g. K4 and H4, K7 and H7, H7 and K10, H10 and E4.. Only E7 and E10 are in constant places in all three tasks). The above shifts are indicative of the variable behaviour of most of the groups according to the tasks.

Simple Past

Many of the points made above apply to the S-tests on results in the simple past. Some points to note are (i) the great improvement of K10 between tasks 1 and 2 (position 5) and task 3 (position 7), (ii) the opposite behaviour of H10. However, most groups improved from task 1 to 2 to 3.

Lastly, performance in any type of task, regardless of the grammatical category being tested, is remarkably near identical. Notice the lines in Tables 22A and D (task 1). The same can be said for task 3 (Tables22C and F).Slight differences in Tables 22B and E reflect the improvement of K7 and H7 in simple past over their performances in 3rd singular in task 2 (compare with figures 11 and 2).

The consistent patterns of the lines of significant differences show the systematic nature of task variation, regardless of shifts between groups or the differences between 3rd singular and simple past. It seems as though types of task define patterns of performance in group comparisons such as these.

Analysis 5.8.5.2.

Scheffe tests of significance for all 9 groups combined were also made to break down the three component tasks which form the basis of the F-values in 5.8.4. Results are given below:

TABLE 23.A

Scheffe Test of significance for Task 1, Task 2, Task 3.

3rd Singular.

	Task 1	Task 2	Task 3
	(x 36.33	x 42.82	x 70.94)
	1089	1284	2128
T	1 -	194	* 1038
A	2 -	-	* 844
S	3 -	-	-
K			

TABLE 23.B

Scheffe Test of significance for Task 1, Task 2, Task 3.

Simple Past.

	Task 1	Task 2	Task 3
	(x 38.77	x 56.77	x 65.16
	1163	1703	1954
T	1 -	540	* 791
A	2 -	-	251
S	3 -	-	-
K			

* $p < .01$

Since the calculated value for t is 352, the results in the tables above show that:

1. For 3rd singular task 3 is significantly different from tasks 1 and 2
2. For simple past, task 1 is significantly different from tasks 2 and 3.

Analysis 5.8.6. Correlation Analysis for Three Tasks

In the first two analysis in this section we have looked at patterns of distribution of subjects according to the three tasks. In Analyses 5.6.4 and 5.6.5 we have established significant and non-significant differences between the tasks. In this analysis we will look at the inter-relationships between the three different tasks to lend support to our findings in the previous analyses.

We turn again to bivariate correlation analysis (5.1) to "determine the extent to which variation in one variable is linked to variation in the other" (Nie et al. op.cit.:279). First, Pearson's r's were computed and the results are displayed in the table below.

TABLE 24

Pearson's Correlation Coefficients.

3rd Singular	NEM(K)	NEM(H)	EM	Total
Task 1 with Task 2	.7246	.9784	.7051	.9121
Task 1 with Task 3	.3200 (p.085)	.5847	.3306 (p.07)	.6190
Task 2 with Task 3	.3821 (p.037)	.6073	.3901 (p.03)	.6502
Simple Past				
Task 1 with Task 2	.6907	.7841	.4324 (p.017)	.8328
Task 1 with Task 3	.4043 (p.027)	.2711 (p.147)	.2911 (p.119)	.5290
Task 2 with Task 3	.6158	.5943 (p.001)	.3064 (p.1)	.6815

Note: Unless otherwise stated p=0.000

Results

3rd Singular : While the r's for all the three groups and the total for task 1 : task 2 correlation are very high (p.0.000), those for the other correlated pairs are not so. This supports the non-significant difference between 1 and 2 in the previous section. Task 3 seems to correlate better with Task 2 than Task 1 (r total : .6502).

Simple Past : The correlation between pairs of tasks are identical to those found for 3rd singular, though the correlations are somewhat weaker (especially in EM).

Scattergrams (7) were plotted for the pairs task 1 : task 2 in 3rd singular and simple past to see individual performances in the two highly correlated tasks. The summary results are given below:

TABLE 25 Distribution of Subjects Showing Variable Performances in Tasks 1 and 2

	3rd Singular	Simple Past
	N.of subjects	N.of subjects
Consistent Performance	51 (65%)	42 (51%)
Improvement in Task 1	9 (11.3%)	3 (4%)
Improvement in Task 2	19 (24%)	38 (46%)
TOTAL	79	83

As seen above a significant proportion of subjects show consistent performance in tasks 1 and 2, though one is an oral production and the other is a written production task. Notice however the trend for 46% of the subjects who performed better in the task 2 in simple past. This indicates that the simple past is more permeable to influences defined by task characteristics (section 5.6).

(7) Scattergrams 4 and 5 in Appendix V.

5.9 Summary of the Main Findings in Chapter 5

1. Higher correlations exist between the aspectual than between tense categories.
2. Variation exists within the six tense and aspect categories but they do constitute an ordered sequence which are arranged implicationally as:
   1. Present Progressive
   2. Past Progressive
   3. Simple Past
   4. Perfect Past
   5. Perfect Present
   6. 3rd Singular
3. Each of the 9 groups (except E10 which shows categorical use) fall into the same pattern of accuracy/acquisition of the categories in the order given above.
4. One of the main determinants of individual and group variable performance was the medium of instruction in the school, both for quantitative data and data based on error-types.
5. The second factor for variation among the groups was class as a function of time.
6. There is variability in the performance of
   (a) 7 groups (except E7 and E10) according to task.
   (b) Variability according to task is patterned.
   (c) The order of task-difficulty is

Easiest	⟶	Mid	⟶	Difficult
Task 3 Recognition		Task 2 Written Production		Task 1 Oral Production

   (d) The correlational patterns between pairs of tasks show higher correlations between task 1 and task 2 than between task 1:task 3 or task 2:task 3 for 3rd singular. There are higher correlations between task 2 and 3 than the other two pairs in simple past
7. The distributional effects of the interactions of the three sources of variations - medium, class, task-difficulty on the 9 groups of subjects are evident in the S-tests.

Conclusion

At the beginning of this chapter we have six main working hypotheses which are of interest to our study. Various types of statistical analyses were made to investigate the validity of the hypotheses.

The results indicated that there are systems and patterns in the performance data of 9 different groups of learners defined by class and medium of instruction, which have been shown to be the main sources of variation in this study. A pattern also emerged from performances in three different tasks in 3rd singular and simple past, indicating again that linguistic behaviour is highly structured because of psycho-cognitive processes related to accessibility and control of linguistic knowledge.

The 'order' of acquisition, based on accuracy data is another indication of systematicity in performances and/or in the structures within the tense and aspect system in English.

These points will be taken up again in Chapter 8.

CHAPTER 6

Negation and Interrogation : Analysis of the Data

6.0. The analytical procedures used in Chapter 5 will be followed in this chapter also for the analysis of the data on negation and interrogation (Wh-Q and Y/N Q). The emphasis will again be on variation as a function of time, medium of instruction and type of task. Empirical evidence will be presented for testing out hypotheses stated in Chapter 3. Bivariate correlation analysis will be used to find out the strength of relationship between tasks or groups, and implicational scales will be constructed to see the ordering of negative and question variants, and of the subjects.

Before proceeding with the analysis, there are some points to note, (i) data on negation and interrogation have missing values as some subjects or some groups did not do all the tests. The groups are therefore unequal; (ii) in the area of interrogation word order phenomenon is assessed separately from suppliance of the correct Aux. (Q-operator); (iii) in both areas - negation and interrogation - grammaticality judgement of negative and interrogative sentences will be one of the tasks, and this is compared with data based on production tasks; (iv) as stated in 4.1, additional data from another NEM language group - Bengali - is incorporated in some analyses in the area of negation, in order to examine the pattern of acquisition by subjects having V-Neg.(post-verbal Neg.) in their language. This additional data, however, will be used mainly in the discussion of the results.

6.1. Error Analysis

Analysis 6.1.1.

Preliminary analysis of the data involves the separation and classification of Neg. variants and Q-words in Y/N and Wh-questions to identify error types. Though the list in the tables includes mainly the Negator (No/Not/Don't etc.) or the Q-operator or marker, it is also considered necessary to look at the syntax of negation and interrogation, i.e. negative and interrogative

sentences must be examined as a whole, as this will give a better picture of the error-types.

There are serious problems in categorizing 'errors' and attributing their presence to one or the other factors - L1 or L2, the teaching situation, or the interaction of two or more causes. The problem is enhanced by the learners' psychological strategies or processes, which until now remain vague and therefore immune to any definite assertions. What we call 'strategies', 'processes', are at best arrived at by our analysis of the surface structures and the intended meaning of the learner, and the gap between the two. The problem is complicated by the fact that the study is cross-sectional and involves a large number of learners who learn English in different situations. A purely longitudinal study of a small number of learners would show a clear line of development from one stage to the other, and the possible causes of 'errors' are conveniently reduced to the L1 (borrowing and transfer) or the L2 (developmental). In this study, there are 'errors' that cannot be attributed to these sources alone. As will be shown, much of the developmental stages of natural acquisition is complicated by the formal teaching (1) when in most cases the teaching seems to have missed the mark - over-emphasis on 'difficult' areas (the structuralist concept of hierarchy of difficulty) such as Do-support in negation and interrogation result in the over-generalization of the taught forms. Also, pattern practice of basic sentence structures like "NP + be + a ..." (John is a ...) result in 'strategies' of slot-filling as in the

---

(1) Deviants from the natural acquisition and the over-application of taught rules/structures by learners is also reported by Jain (1974) and by Wode (1981:31). Examples cited are the over-generalization of that-clause (from practices in indirect speech) reported by Jain. Wode gives examples of over-generalization of doesn't as a Neg. variant when the teacher attempted to introduce Do-support in negation. Thiele (personal communication) cites examples of slot-filling of the taught structure "Its a ..." by a German child "It's a me".

following sentences: (2)

Negation :

18. He is a (3) not go

19. They are not can come

Interrogation:

20. Did Rita is living in that house? (Is ...?)

21. Why does/he is going with you now? (Why is ...?)

The other result is the acquisition of unanalysed patterns such as 'He is a', 'they are', 'Why do', 'What did'. Though these are written as separate words, it is possible that young children think these as single units because of the structural drilling and stresses 'He is ...', 'They are ...' This may account for sentences like

22. Why do, he is, not want to go?

which is a combination of Why do as a question operator, he is as NP.

The classification of variants and error-types are based on the following considerations. Firstly, developmental errors follow the guidelines set out in previous studies and reported in the literature on negation and interrogation (L1 : Klima and Bellugi 1966; L2 : Ravem 1969, Wode 1980). These are acquisitional types based on the strategy of generalization which results in simple codes (see Table 26 column 1 below). Secondly, in this study we recognise that there are errors which cannot be attributed to purely developmental reasons since they are not reduced codes but are very elaborate, though in a way far removed from the target language.

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(2) In Chapter 7 the strategies of slot-filling, linear expansion of complexity (Felix 1978) and the construction of 'sentences' by stringing together unanalysed units, will be discussed in detail.

(3) Possible patterns and unanalysed units are underlined.

Analysis 6.1.1A Error Analysis of Negative Structures

TABLE 26 Error-Types in Negation

Columns I Developmental	Column II Developmental and classroom induced	Column III Transfer
1. No	1. Be+No	
No I will go	He is no come here	
(I won't go)	(He won't come here)	
No I am study		
(I won't study)		
I no eat rice		
(I won't eat rice)		
2. Not	2. Be+Not	1. Not+is/are
He not eat rice now	I am not spoken to Rita	She a not is a Shillong
(He isn't eating rice now)	(I haven't spoken to Rita	(She isn't in Shillong)
He not go it now	I am not go alone	She book not is a bag
(He won't go now)	(I won't go alone	(The book isn't in the bag)
Last year not teacher	I am not go school	Last year a not is teacher
(Last year she wasn't a teacher)	(I won't go to school)	(Last year she wasn't a teacher)
The Sita not want tea	They are not live here	
(Sita doesn't want tea)	(They don't live here)	
Last year a not the Shillong		
(Last year he wasn't in Shillong)		
	3. Be+a+not	
	Last year he is a not captain	
	(Last year he wasn't a captain)	

Columns I Developmental	Column II Developmental and classroom induced	Column III Transfer
	He Ram is a not want go (Ram doesn't want to go)	He Ram is a not want go (He Ram doesn't want to go)
3. Over-generalization of Don't You dwon go to school yesterday (You didn't go to school yesterday) Yesterday you don go to school (Yesterday you didn't go to school)	4. Be+Don't He Ram is don't want to go (Ram doesn't want to go) They are don give the book (They didn't give the book) She is don't want tea (She doesn't want tea)	He Ram is don't want to go (He Ram doesn't want to go) 2. Did not Yesterday the book did not has bag (Yesterday the book wasn't in the bag)
4. Over-generalization of Didn't/Did not The Sita did not the tea (Sita doesn't want tea) Now did not they good (Now they aren't good)	5. Be+Didn't/Did not They are did not come (They didn't come) Why did he is did not want to go? (Why didn't he want to go?)	
5. Not+modal She can a not go (She cannot go)	6. Be+not+modal He is not can come here (He cannot come here) He is not a can sing (He cannot sing)	
6. Never I never walk alone (I won't walk alone) I have never eat rice now (I haven't eaten the rice till now) You should never go (You must not go)		

Notice that the Neg. variants are the universal negators found in most early L2 studies in English negation. What is different is the sample data in column II of Table 26 the presence of Be-Aux. after noun or pronoun. Here was also see the curious amalgamation of developmental and classroom induced errors. In many cases there are two Auxs. which show a very different picture from the usual simple codes of learners. In column III there are samples of very rare occurrences of the influence of the L1, e.g. some Khasi children made literal translations in the English sentences:

K.18. Kam dei ka nonghikai
she not is she teacher

Analysis 6.1.1B Error Analysis of Interrogative Structures

The same kinds of problems arise in attempts to distribute error-types in interrogative structures. Developmental errors are based on what other studies (longitudinal and cross-sectional) have found. Here too the possibility of multi-sources errors is evident. This is especially true of errors which can be traced to both sources - developmental and classroom induced. Since 'transfer' or interlingual errors - lack of inversion - overlap with developmental errors, column III is not considered necessary in Tables 27 and 28 below.

TABLE 27 Error-Types in Y/N Questions

Columns I Developmental	Columns II Developmental and classroom induced
1. Uninverted Rising Intonation as question marker	1. Do as question marker
You like rosgulla?	Do you keep a place for me? (can you ...?)
Rita is living here?	Do the children now reading? (Are the ...?)
	Do your house is far from here? (Is your ...?)
	Do you don't want to go? (Don't you ...?)
	Do the children are still reading? (Are the ...?)
2. No Do-Insertion	2. Did as question marker
Danny like rosgulla?	Did I come with you now? (Shall I ...?)
You want to go?	Did he can go or not? (Can her ...?)
	Did I can come with you now? (Can I ...?)
	Last year did he was a clever boy? (Was he ...?)
	3. Does as question marker
	Does he come school yesterday? (Did he ...?)
	Does they like about him? (Do they ...?)
	Does Tom house is far from here? (Is Tom's ...?)
	Does your friend is with you here? (Is your ...?)

Columns I	Column II
Developmental	Developmental and classroom induced

4. Is as question marker

Is Rita lives in that house?
(Does Rita ...?)
Is your house is far?
(Is your ...?)
Is your friends are with you?
(Are your ...?)
Is he was sleeping when you came?
(Was he ...?)
Is they are students or not now?
(Are they ...?)

5. Are as Question-word

Are you like a rosgulla?
(Do you ...?)
Are you not felt cold?
(Don't you ...?)
Are they were students?
(Were they ...?)

TABLE 28 Error-Types in Wh-Questions

Columns I	Column II
Developmental	Developmental and classroom induced errors
1. No.Aux.	1. Wh-are as Question-word
What ask the book?	Where are you yesterday go school?
What children want to you? (from)	(Where did ...?)
What children now reading?	Last week where are children are fall?
When you go to Gauhati?	(Where did ...?)
	When Gauhati are can going?
	(When can ...?)
	Why are a buy rong book?
	(Why did ...?)
	Why are you cannot reading now?
	(Why can't ...?)
	Why are you not keep the book?
	(Why don't ...?)
2. Uninverted	2. Wh+Do as Question word
Why he will not go with Ram	Where do you taking book?
Why I cannot go with you	(Where are ...?)
Why he didn't do a homework	Why do you have written the book?
Why he is still sitting in the class	(Why have ...?)
	3. Wh+Did as Question word
	Why did you didn't go with Rama?
	(Why didn't ...?)
	Why did I cannot go with you?
	(Why can't ...?)
	Why did he was waiting for me after school time?
	(Why was ...?)
	Why did he has not done his homework?
	(Why hasn't ...?)
	What did children were asking yesterday?
	(What were ...?)

Columns I	Column II
Developmental	Developmental and classroom induced errors

4. Wh+Does as Question word
Where does children fall last week?
(Where did ...?)
Why does he is going with you now?
(Why is ...?)
Why does you write this book?
(Why do ...?)
What does I want to say to Principal?
(What must ...?)

5. Wh+modal
When will he can came?
(When can ...?)

In column II of the tables above the influence of teaching is evident: because Do-insertion is one of the most difficult areas in F-MV negative and interrogative sentences, it has been emphasised in teaching. The result is that many learners confuse the application of Do-insertion rule in F-MV sentences with the notion that Do is a probable question marker in Y/N questions of all types. In Wh-questions, Wh+Do/Did is taken to be a means of starting such questions

23. Why did he must go?

In both Y/N and Wh-questions there are some learners who prefer the Aux. Be (Is, Are etc.) as a question marker, e.g.

24. Is your house is far from her? (redundant 'Is')
25. Is not I am a schoolboy? (Am I ...?)
26. Is they are students now? (Are they ...?)
27. Why are you go yesterday? (Why did ...?)
28. Why are a buy a rong book yesterday? (Why did ...?)

Such forms may also result from attempts to teach the inversion rule before the students are ready for it. The learner's strategy appears to be to keep the Aux. in its declarative sentence position, and prefix 'Is', 'Are' or 'Wh are' before the sentence to transform a declarative sentence into an interrogative sentence.

6.1.2. Quantification of Error-types and Variants

Analysis 6.1.2A Negation

The results of quantified error-types are given below.

TABLE 29 Percentages of Correct and Incorrect (2) Uses of the Negative Variants (Translation Task)

1	2	3	4	5	6	7	8	9	10	11	12	13
K4	2.0	27.0	7.0	34.0	10.0	7.0	17.0	24.0	25.0	113	113	-
K7	49	10.0	8.3	18.0	76.0	20	27.3	47.0	31.0	8	8	3.3
H7	28	26.0	23.0	49.0	55.0	25	27.0	52.0	30.0	97	97	-
K10	73	19.3	2.0	21.0	70.0	18	8.3	26.0	65.0	2	2	3.6
H10	95	12.0	1.2	13.0	94.3	8	.0.0	8.0	74.0	-	-	-
E7	100	0.0	0.0	0.0	100.0	.0.0	0.0	0.0	100.0	0.0	-	-
E10	100	0.0	0.0	0.0	100.0	0.0	0.0	0.0	100.0	0.0	-	-
T				135.0				156.0			242	

Where col.2 is the correct use of Do + not
3 is the overgeneralization of Do, for does or did
4 is the overgeneralization of Do in Be, Have and other contexts
5 is the total overgeneralization of Do in all contexts
6 is the correct use of Did + not
7 is the overgeneralization of Did, for Do and does
8 is the overgeneralization of Did in Be, Have and other contexts
9 is the total overgeneralization of Did in all contexts
10 is the correct use of Be
11 is the overgeneralization of Be, for am, is, are, was, were
12 is the total overgeneralization of Be
13 is the incorrect use of never

(2) Incorrect use is overgeneralization of a particular Neg. Variant.

TABLE 30

Percentages of Incorrect Use of the Negative Variants

(Error Correction Test)

K7	Be-Aux.	DON'T	DIDN'T	NOT	E4	Be-Aux.	DON'T	DIDN'T	NOT
31.	19.0	-	-	29.0	21	-	-	10.0	-
32.	5.0	-	-	29.0	22	10.0	-	10.0	-
33.	10.0	14.2	29.0	-	23	-	-	48.0	-
34.	10.0	-	19.0	-	24	-	14.2	19.0	-
35.	33.3	-	5.0	-	25	-	19.0	19.0	-
36.	14.2	-	-	-	26	-	-	-	10.0
37.	19.0	-	19.0	-	27	-	-	-	-
38.	14.2	5.0	5.0	-	28	-	-	-	-
39.	14.2	-	5.0	-	29	-	14.2	10.0	-
40.	-	-	14.2	-	30	-	-	24.0	5.0
T=	138.9	19.2	96.2	58.0		10.0	47.2	140.0	15.0
%=	13.89	1.92	9.62	5.8		1.0	4.72	14.0	1.5
H7					H10				
41.	5.0	29.0	-	-	71	-	-	14.2	-
42.	5.0	-	-	-	72	-	-	19.0	-
43.	-	-	5.0	-	73	-	-	5.0	-
44.	-	5.0	5.0	-	74	-	-	-	-
45.	-	5.0	10.0	-	75	-	-	-	-
46.	-	-	10.0	-	76	-	-	-	-
47.	14.2	5.0	-	-	77	-	-	-	-
48.	-	-	19.0	-	78	-	-	19.0	-
49.	-	-	10.0	-	79	-	-	24.0	-
50.	-	-	10.0	-	80	-	-	10.0	-
T=	24.2	44.0	69.0	-		-	-	91.2	-
%=	2.42	4.4	6.9	-		-	-	9.12	-

Note: a '-' represents '0.0'

TABLE 3I.

PERCENTAGES OF ERROR-TYPES AND NEG. VARIANTS USED BY BENGALI STUDENTS CLASS IV.

	Correct	Is	Is a not	Not	V/N Not	Is To	Is V. No (Ch. Final)	Nil or positive	Are	Was	Don't	Never	Am	Will
I.Is	5I.0	0.0	28.0	9.I8	I.02	I.53	I.02	7.65	0.0	0.0	0.0	0.0	0.0	0.0
2.Was	I0.0	35.7	0.0	7.I4	7.I4	2.38	2.38	35.7I	0.0	0.0	0.0	0.0	0.0	0.0
3.Am	64.28	0.0	3.57	7.I4	0.0	3.57	0.0	2I.42	0.0	0.0	0.0	0.0	0.0	0.0
4.Are	42.85	7.I4	0.0	2I.42	0.0	0.0	0.0	28.57	0.0	0.0	0.0	0.0	0.0	0.0
5.Were	0.0	7.I4	0.0	I7.85	0.0	0.0	0.0	35.7I	I7.85	I0.7I	0.0	0.0	0.0	0.0
6.Does	0.0	42.85	2I.42	7.I4	0.0	3.57	3.57	3.57	0.0	0.0	3.57	I0.7I	0.0	0.0
7.Do	7.I4	I7.85	0.0	25.0	0.0	0.0	0.0	28.57	0.0	3.57	0.0	0.0	7.I4	0.0
8.Will	3.57	50.0	I0.7I	7.I4	3.57	3.57	3.57	I0.7I	0.0	0.0	7.I4	0.0	0.0	0.0
9.Can	7.I4	25.0	I4.28	I4.28	0.0	0.0	3.57	28.57	0.0	0.0	0.0	0.0	0.0	0.0
I0.Must	0.0	7.I4	0.0	7.I4	0.0	0.0	3.57	53.57	0.0	0.0	0.0	0.0	2I.42	7.I4
II.Could	0.0	7.I4	3.57	I0.7I	0.0	0.0	I0.7I	53.57	7.I4	0.0	0.0	0.0	3.57	0.0
I2.Should	0.0	I0.I4	0.0	I7.85	0.0	3.57	3.57	I7.85	I7.85	0.0	0.0	0.0	0.0	3.57
I3.Had	0.0	3.57	0.0	0.0	0.0	0.0	0.0	30.95	0.0	0.0	0.0	0.0	0.0	0.0
I4.Have	0.0	7.I4	00.0	II.90	0.0	0.0	4.76	42.85	0.0	0.0	0.0	0.0	7.I4	I6.60
Total	I85.98	.8I	8I.55		II.73		36.92		42.84	I4.28	I0.7I		39.27	27.3I
(%)	27.67	32.85	I2.I3	24.39	I.74	2.I0	5.46		6.30	2.I2	I.59	I.59	5.84	4.06

The above tables show the percentages of correct and incorrect use of Neg. variants; percentages are worked out for all the groups in Table 29 , for individual learners in K7, H7, E4 and H10 in Table 30 and for the Bengali group in Table 31. In Table 29 , while correct use ranges from 2 to 100 (in don't), 10 to 100 (in didn't), 25 to 100 (in be+not), the over-generalization decreases from K4 to E10. The increase of correct use and the decrease in over-generalization of a variant indicates the progress of learning in the different schools, as a function of time. Since the overall total for Be Aux. (242) is the highest, this confirms what was discussed earlier, i.e. the strategy of slot-filling and insertion of 'not' in set patterns like "NP is (a) not ...". The picture is however different (except for K7) in Table 30 , since the type of task - supplying the correct Aux. before the negator 'not' - allows less freedom than in the translation task which provides the data for the previous table. Thus in Table 30 there is higher percentages in the over-generalization of 'didn't' because most of the testees use 'didn't' even in perfective aspect sentences, e.g.

29. I did not spoken to Rita yet (I have ...)
30. We did not found the ring (We have ...)

The additional data from Bengali learners in Table 31 is again from translation task; it tallies with Table 29 in that the highest percentages of over-generalization is in the use of a be Aux. form - is - at 90.80%. In other words, learners here too seem to prefer sentences like

31. He is not can come (He cannot ...)
32. Rita is not come yesterday (Rita did not ...)

Analysis 6.1.2B Interrogation

As in the above analysis, quantification of errors due to over-generalization and other error-types have been made and the results are presented in the tables below:

TABLE 32 Percentages of Error-types in Y/N Questions (Transformation of sentences task)

	Did	Does	Do	Do-Aux Total	Be	Have	Modal	Overall total
K7	120.0	20.0	48.0	188.0	0.0	0.0	0.0	188.0
H7	12.0	2.0	13.0	27.0	0.0	0.0	0.0	27.0
K10	72.0	11.0	15.2	98.0	7.39	0.0	0.0	105.0
H10	13.0	4.3	9.0	65.0	2.17	0.0	0.0	67.0
T=	217.0	37.3	85.2	378.0	9.56	0.0	0.0	387.0

TABLE 33 Percentages of Error-types in Wh-questions (Transformation of sentences task)

	Did	Does	Do	Do-Aux Total	Be	Have	Modal	Overall total
K7	7.0	1.42	1.42	9.84	0.0	0.0	0.0	9.84
H7	5.0	0.0	0.95	5.95	0.0	0.0	0.0	5.95
K10	17.0	1.3	7.0	25.3	0.0	0.0	0.47	25.77
H10	33.3	1.3	7.14	41.74	1.42	0.0	0.0	43.16
T=	62.3	4.02	16.51	82.83	1.42	0.0	0.47	84.72

The tables above give the figures for over-generalization and other errors like absence of Aux., wrong word order and wrong question word (i.e. when another Aux. is used, e.g. 'Do' for 'Can'). In Tables 32 and 33 the overall totals show that Do-Aux. is the most overgeneralized Aux. in questions - 378 in Y/N and 82.83 in Wh-questions. This confirms what was stated earlier regarding the over-generalization of a much emphasised form in classes because it is a 'difficult' form.

6.2. Frequency Distribution of Subjects

Analysis 6.2.1A Frequency Distribution of Subjects in Negation

The performance scores of the subjects have been calculated and arranged at 20% intervals. These are presented in the tables below:

TABLE 34A Frequency Distributions of Subjects : Negation (Translation Test)

	K4	H4	E4	K7	H7	E7	K10	H10	E10
Missing	20	100	0	0	0	0	0	0	100
1. 0-19	80	0	0	0	0	0	0	0	0
2. 20-39	0	0	0	0	10	0	0	0	0
3. 40-59	0	0	0	60	50	0	40	40	0
4. 60-79	0	0	0	40	20	0	40	40	0
5. 80-100	0	0	0	0	20	100	20	20	0

TABLE 34B (Error Correction of 'Not')

	K4	H4	E4	K7	H7	E7	K10	H10	E10
Missing	0	0	0	0	0	0	100	0	0
1. 0-19	70	100	0	0	0	0	0	0	0
2. 20-39	30	0	20	60	10	0	0	0	0
3. 40-59	0	0	10	30	10	0	0	0	0
4. 60-79	0	0	40	10	20	20	20	20	0
5. 80-100	0	0	30	0	60	80	0	80	100

TABLE 34C (Error Correction of 'Don't')

	K4	H4	E4	K7	H7	E7	K10	H10	E10
Missing	0	0	0	0	0	0	100	0	0
1. 0-19	60	100	10	0	0	0	0	0	0
2. 20-39	40	0	20	70	0	0	0	0	0
3. 40-59	0	0	20	30	50	0	0	10	0
4. 60-79	0	0	20	0	30	30	0	40	0
5. 80-100	0	0	30	0	20	70	0	50	100

TABLE 34D (Grammaticality Judgement)

	K4	H4	E4	K7	H7	E7	K10	H10	E10
Missing	0	0	0	0	0	0	100	0	0
1. 0-19	0	0	0	0	0	0	0	0	0
2. 20-39	40	60	0	0	0	0	0	0	0
3. 40-59	40	40	20	40	0	0	0	0	0
4. 60-79	20	0	0	0	10	60	0	10	0
5. 80-100	0	0	80	60	90	40	0	90	100

The tables show that K4 and H4 are found only at the lowest ranges 1 and 2 except in the grammaticality judgement task (Table 34C) where the two groups have moved to higher levels 2-4, K7 is mostly in the middle ranges, rarely reaching the highest level, 5, except in Table 34A and in the grammaticality judgement task in Table 34C. H7, H10 and E4 are usually between the level 3-5, while the highest concentration of subjects of E7 and E10 are in the highest level 5.

Analysis 6.2.1B Frequency Distribution of Subjects in Interrogation

Frequency distributions of subjects for interrogation are calculated for the suppliance of the correct question marker in each test. Correct word order have been calculated separately. The results are as follows:

TABLE 35.A

FREQUENCY DISTRIBUTIONS OF SUBJECTS: WH QUESTIONS

(TRANSLATION TEST)

		K4	H4	E4	K7	H7	E7	K10	H10	E10
	Missing	100	100	0	0	0	0	0	0	0
L	1. 0-19	0	0	0	0	0	0	0	0	0
E	2. 20-39	0	0	10	0	0	0	0	0	0
V	3. 40-59	0	0	0	50	20	0	0	0	0
E	4. 60-79	0	0	30	40	80	0	60	20	0
L	5. 80-100	0	0	60	10	0	100	40	80	100
S										

TABLE 35.B

ERROR CORRECTION TEST: WH QUESTIONS

		K4	H4	E4	K7	H7	E7	K10	H10	E10
	Missing	0	0	0	0	0	0	100	0	0
L	1. 0-19	90	100	0	20	0	0	0	0	0
E	2. 20-39	10	0	0	40	30	0	0	0	0
V	3. 40-59	0	0	0	40	30	0	0	10	0
E	4. 60-79	0	0	50	0	40	30	0	40	0
L	5. 80-100	0	0	50	0	0	70	0	50	100
S										

TABLE 35.C

TRANSLATION TEST: Y/N QUESTIONS

		K4	H4	E4	K7	H7	E7	K10	H10	E10
	Missing	0	100	0	0	0	0	0	0	0
L	1. 0-19	80	0	0	0	0	0	0	0	0
E	2. 20-39	20	0	0	0	40	0	10	0	0
V	3. 40-59	0	0	20	80	40	0	10	0	0
E	4. 60-79	0	0	40	20	20	0	40	40	0
L	5. 80-100	0	0	40	0	0	100	40	60	100
S										

TABLE 35.D

TRANSFORMATION TEST: Y/N QUESTIONS

		K4	H4	E4	K7	H7	E7	K10	H10	E10
	Missing	0	100	0	0	100	100	0	0	100
L	1. 0-19	70	0	0	0	0	0	0	0	0
E	2. 20-39	30	0	0	0	0	0	0	0	0
V	3. 40-59	0	0	0	20	0	0	20	0	0
E	4. 60-79	0	0	10	60	0	0	60	40	0
L	5. 80-100	0	0	90	20	0	0	20	60	0
S										

TABLE 35.E

GRAMMATICALITY JUDGEMENT: WH QUESTIONS

		K4	H4	E4	K7	H7	E7	K10	H10	E10
	Missing	0	0	0	0	10	0	100	0	0
L	1. 0-19	10	80	0	0	0	0	0	0	0
E	2. 20-39	40	0	0	20	10	0	0	0	0
V	3. 40-59	40	20	10	30	10	0	0	20	0
E	4. 60-79	0	0	30	40	20	0	0	0	0
L	5. 80-100	0	0	60	10	50	100	0	80	100
S										

TABLE 35.F

TRANSLATION TEST: WH QUESTIONS WORD ORDER

		K4	H4	E4	K7	H7	E7	K10	H10	E10
	Missing	100	100	0	0	0	0	0	0	0
L	1. 0-19	0	0	0	0	10	0	0	0	0
E	2. 20-39	0	0	0	30	40	0	10	0	0
V	3. 40-59	0	0	0	60	30	0	0	10	0
E	4. 60-79	0	0	20	10	20	0	70	60	0
L	5. 80-100	0	0	80	0	0	100	20	30	100
S										

TABLE 35.G

ERROR CORRECTION TEST: WH QUESTIONS WORD ORDER

		K4	H4	E4	K7	H7	E7	K10	H10	E10
	Missing	100	100	0	0	10	0	100	0	0
L	1. 0-19	0	0	0	50	20	0	0	0	0
E	2. 20-39	0	0	10	30	20	0	0	20	0
V	3. 40-59	0	0	30	20	30	0	0	10	0
E	4. 60-79	0	0	30	0	20	0	0	40	0
L	5. 80-100	0	0	30	0	0	100	0	30	100
S										

TABLE 35.H

TRANSLATION TEST: Y/N WORD ORDER

		K4	H4	E4	K7	H7	E7	K10	H10	E10
	Missing	0	100	0	0	0	0	0	0	0
L	1. 0-19	80	0	0	20	0	0	10	0	0
E	2. 20-39	20	0	0	40	40	0	10	10	0
V	3. 40-59	0	0	30	40	30	0	0	50	0
E	4. 60-79	0	0	50	0	30	0	60	40	0
L	5. 80-100	0	0	20	0	0	100	20	0	100
S										

TABLE 35.I

TRANSFORMATION TEST: WH QUESTIONS WORD ORDER

		K4	H4	E4	K7	H7	E7	K10	H10	E10
	Missing	0	100	0	0	100	100	0	0	100
L	1. 0-19	80	0	0	40	0	0	0	0	0
E	2. 20-39	20	0	0	10	0	0	0	10	0
V	3. 40-59	0	0	0	30	0	0	0	0	0
E	4. 60-79	0	0	0	20	0	0	50	10	0
L	5. 80-100	0	0	100	0	0	0	50	80	0
S										

The distribution of subjects for Y/N and Wh-questions again show greater number of subjects in the higher levels 4 and 5 if (i) they are from EM, (ii) they are in Class 10. Once again, there is marked improvement by all NEM groups in the grammaticality judgement task (Table 35E).

Tables 35F,G,H,I showing distribution of subjects on word order scores show considerable differences between EM and NEM groups, especially in the translation task, where the highest percentage is only 30% (Table 35F:H10). This is because the inversion rule is rarely applied by NEM learners. In the error-correction task a number of NEM testees 'corrected' the right word order and supplied their own version of the sentence - the non-inverted Wh-question. For example

33. Why is he going alone?
Why he is going alone?

This is due to the following reasons, (i) they have not yet learned the rule of inversion, (ii) they have a strategy of just attaching a 'question word' marker to a declarative sentence and (iii) they have a non-native language model, i.e. Indian English which does not make use of inversion in interrogative sentences.

Summary : Distribution of subjects in all the tables are indicative of (i) better performances as a function of time (class), (ii) better performances because of more exposure in the form of the medium of instruction (E4 subjects are never found in the lowest range, except in Table 34D) ; some learners of this group are found at the highest level (5) at par with the highest NEM groups, H10 and K10, (iii) the distribution of subjects along the developmental continuum as measured by their proficiency in the tasks.

6.3 Means of Performance Scores

Analysis 6.3.1A Calculation of Means in Negation

Means of performance scores for each group were calculated; the results are given in the table below:

TABLE 36 Means of Performance Scores in Negation

	K4	H4	E4	K7	H7	E7	K10	H10	E10
Translation Test (n=68)	24.18 (8)	- -	97 (10)	61.3 (10)	55 (10)	99 (10)	69.34 (10)	67 (10)	- -
Error Correction (n=80)	1.0 (10)	0.0 (10)	75 (10)	52 (10)	67 (10)	85 (10)	- -	84 (10)	100 (10)
Gram.Judgement (n=80)	37.25 (10)	34.75 (10)	83 (10)	72 (10)	91 (10)	99 (10)	- -	96 (10)	100 (10)
EC of Not (n=80)	10 (10)	2 (10)	75 (10)	52 (10)	67 (10)	85 (10)	- -	84 (10)	100 (10)
EC of Don't (n=80)	21 (10)	0.0 (10)	66 (10)	44 (10)	63 (10)	76 (10)	- -	79 (10)	100 (10)

Graphic display of the means of performance scores are given in Figures 16 - 18. Since some groups did not do the tests (Figure 16 : E10 and H4 missing; Figure 17 : K10 missing; Figure 18 : K10 missing), there are broken lines in the figures. However, the graphs do indicate a consistent pattern with EM at the top and NEM(K) and NEM(H) on the lower scales.

Figure 16. Negation. Task 1. (Translation).

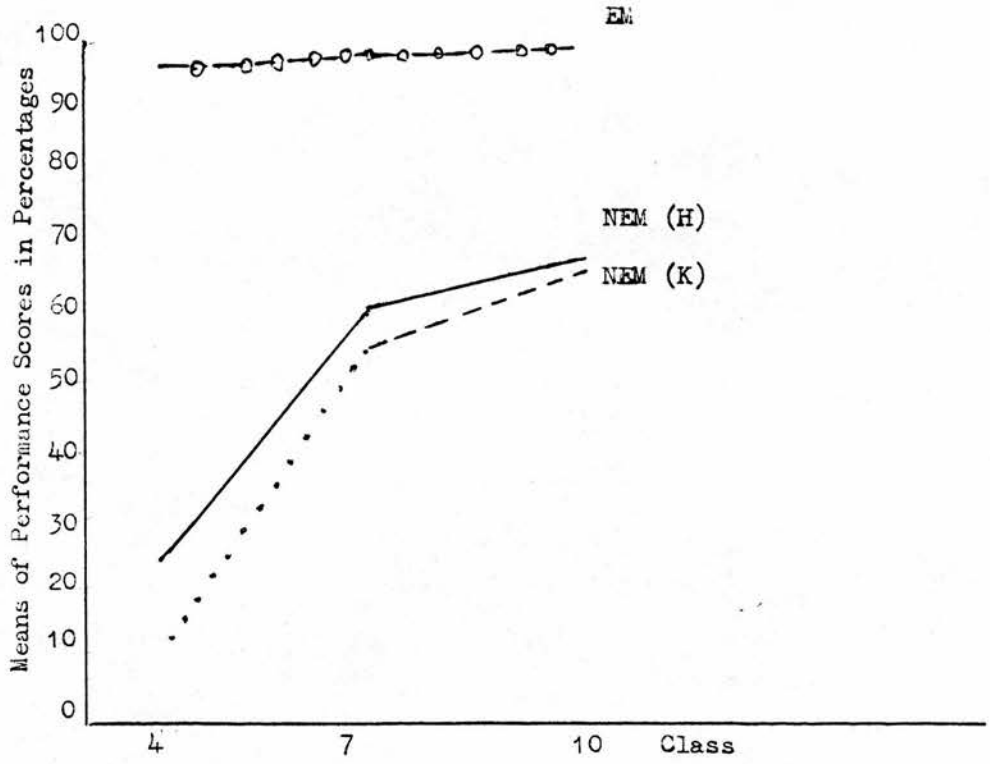


Figure 17. Negation. Task 2. (Error Correction).

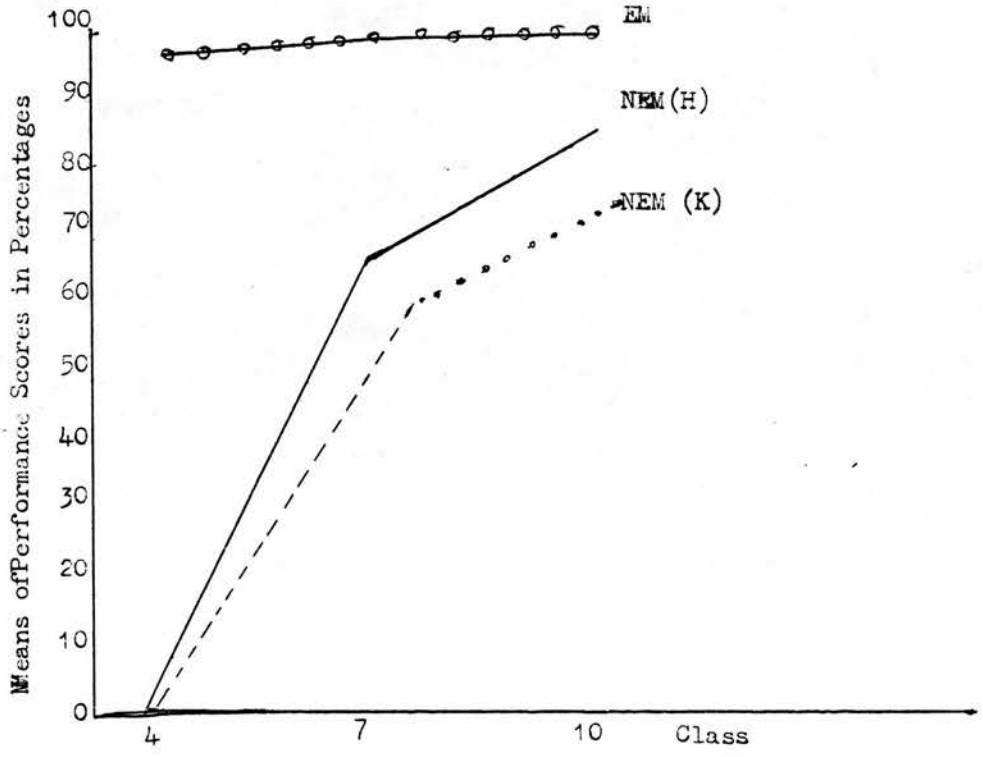


Figure 18. Negation.(Grammaticality Judgement).

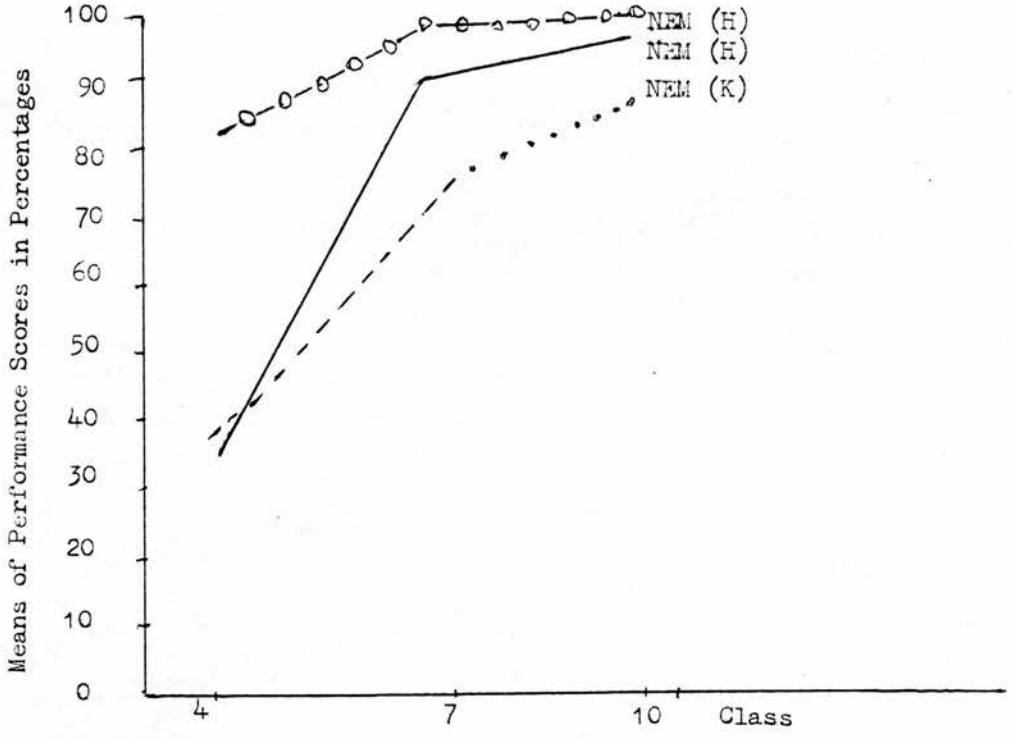
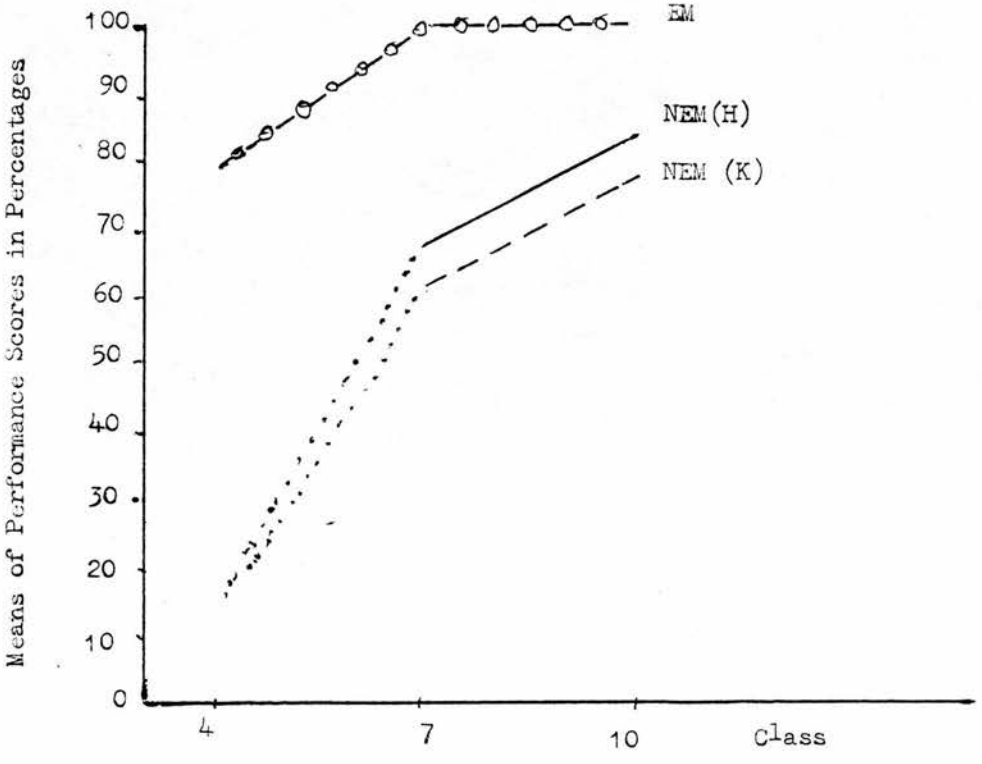


Figure 19. Wh.Questions.Task 1(Translation)*



Analysis 6.3.1B Calculation of Means in Interrogation

TABLE 37 Means of Performance Scores : Interrogation

WH. Question.	K4	H4	E4	K7	H7	E7	K10	H10	E10
1.Translation Test	-	-	78.5	61.42	67.14	100.0	77.38	82.85	100
2.Error Correction	4.75	0.0	76.25	35.5	54.16	86.0	-	81.5	98.25
3.Grammaticality Judgement	37.5	14.25	80.0	57.0	72.22	97.0	-	80.75	99
Yes/No Questions									
4.Translation Test	12.22	-	71.3	49.78	45.0	96.95	71.3	81.08	100
Combined WH & Y/N Questions									
5.Translation Test	-	-	74.93	55.6	56.07	98.47	74.34	81.97	100
6.Transformation Test	10.8	-	92.6	66.80	-	-	70.2	82.0	-

The means of performance scores in the different types of tasks in the above table are graphically displayed in Figures 19 - 23. Here too there are missing groups in some tests. Nonetheless the graphs give a clear indication of the positions of the three different groups, with NEM(K) on the lowest level, NEM(H) in the middle, and EM always reaching at the 70-100 portion.

Figure 20. Wh.Questions.Task 2(Error Correction).

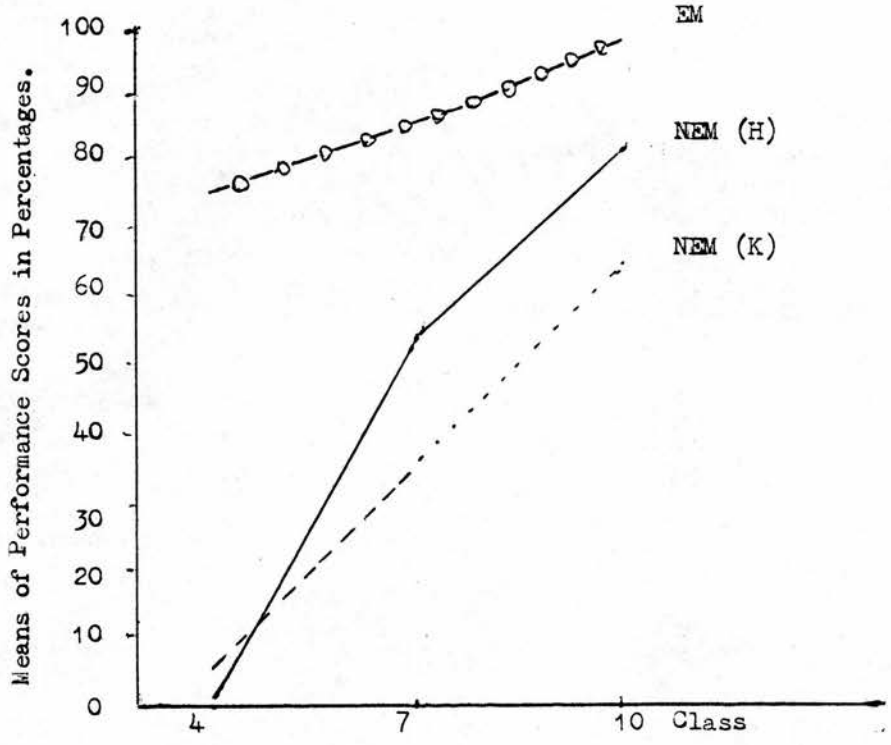


Figure 21. Wh.Questions.Task 4(Grammaticality Judgement).

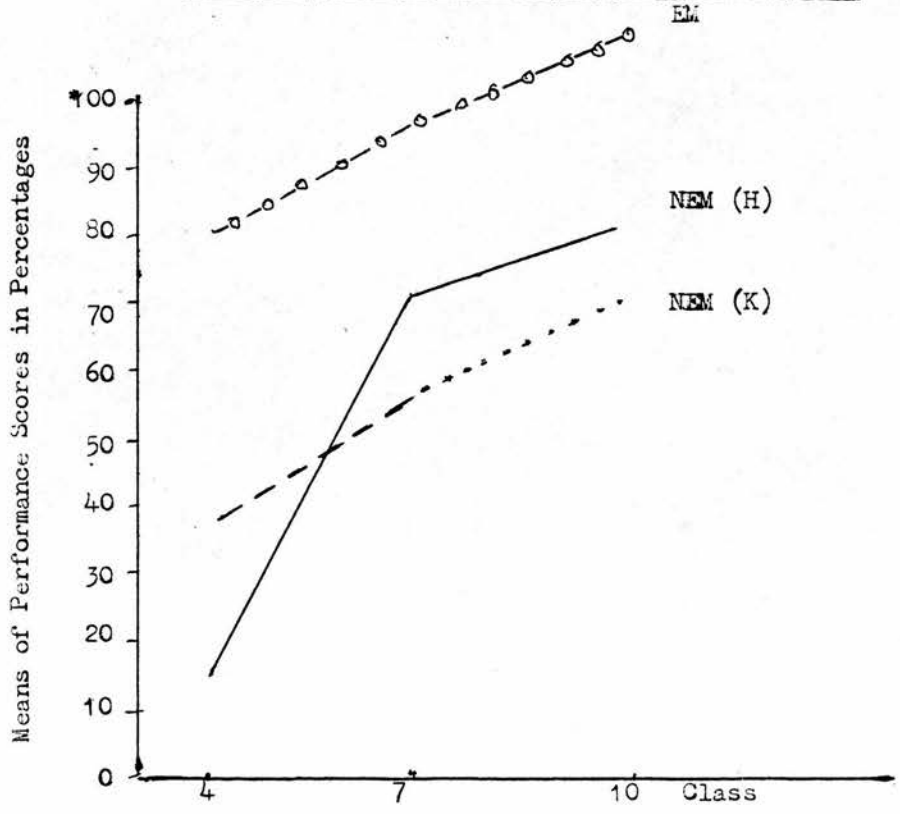


Figure 22. Y/N Questions. Task 1. (Translation).

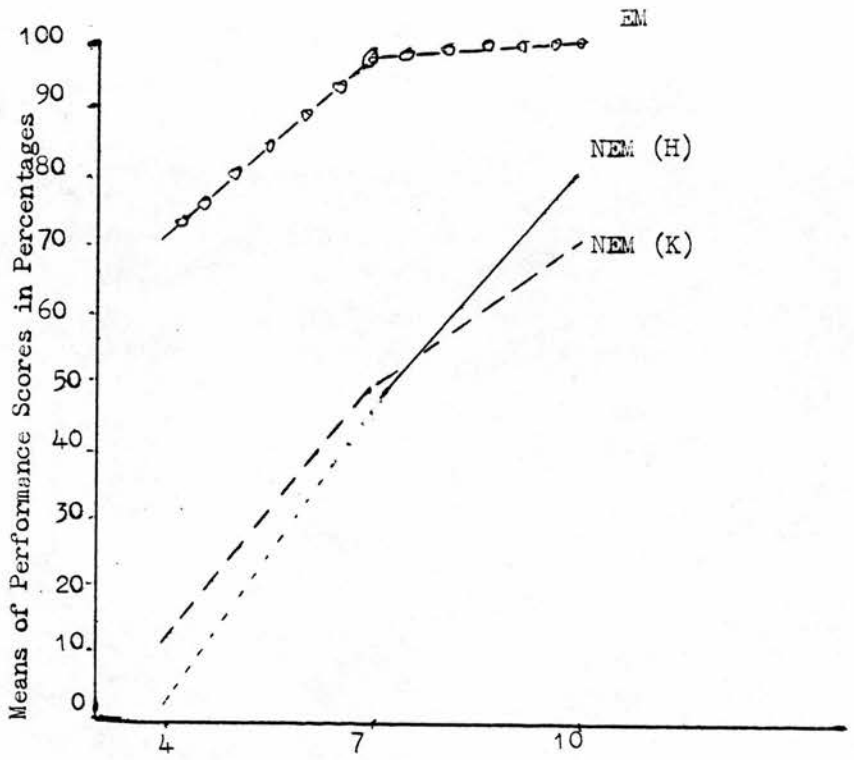
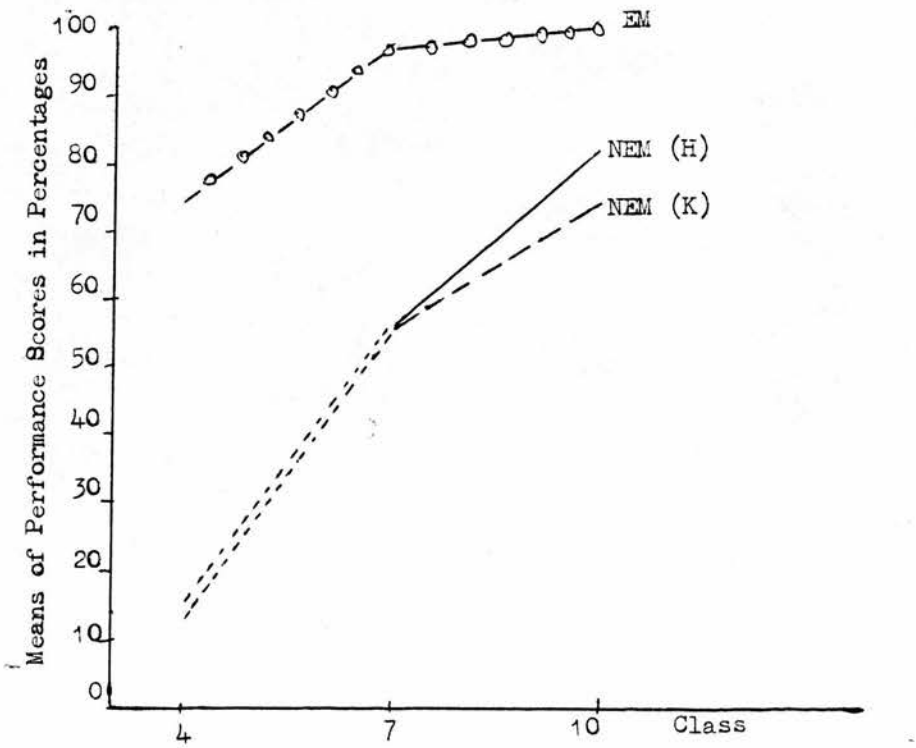


Figure 23. Y/N and Wh. Questions Combined Scores (Translation.)



Analysis 6.3.1C Calculation of Means in Word Order

TABLE 38 Means of Performance Scores : Word Order in Questions

WH Question	K4	H4	E4	K7	H7	E7	K10	H10	E10
1.Translation Test	-	-	90	46.66	41.90	100	70.0	73.09	100
2.Error Correction	0.0	0.0	63.5	40.16	43.3	80	-	61.25	98
Y/N Questions									
3.Translation Test	12.5	-	70.43	33.04	45.21	94.34	63.47	57.39	100
Combined WH & Y/N Questions									
4.Translation Test	-	-	80.2	40	43.56	97.17	66.73	65.24	100
5.Transformation	9.2	-	96.4	34.2	-	-	75.6	84.4	-

The above table shows calculated means of performance scores for the correct word order (i.e. inversion in Y/N and Wh-questions). As discussed earlier, word order is analysed separately from the use of various question markers. It is hoped that such a separation will throw more light on the acquisition of the syntax of interrogative structures. A comparison between Tables 37 and 38 show that the EM groups are fairly consistent in both suppliance of the correct question marker, and in word order, in the different tasks. On the other hand, NEM groups - except K4 which is fairly consistent (low scores of 4.75 in Table 37 and 12.5 in Table 38) - seem to do better in the suppliance of the correct question word, than in the use of the inversion rule. This is especially true of K7, H7 and H10.

The means of performance scores in word order are again shown graphically in Figures 24-27. For each of the tasks, the lines are at a lower level for NEM(K) and NEM(H) when compared to Figures 19-23 above. A comparison between Figures 19 and 23 for example, show a sharp decline in the lines representing NEM(H) and NEM(K). There are also slight differences between NEM(K) and NEM(H), e.g. K10 has surpassed H10 in word order (Figure 24).

Figure 24. Word Order in Wh. Questions (Translation).

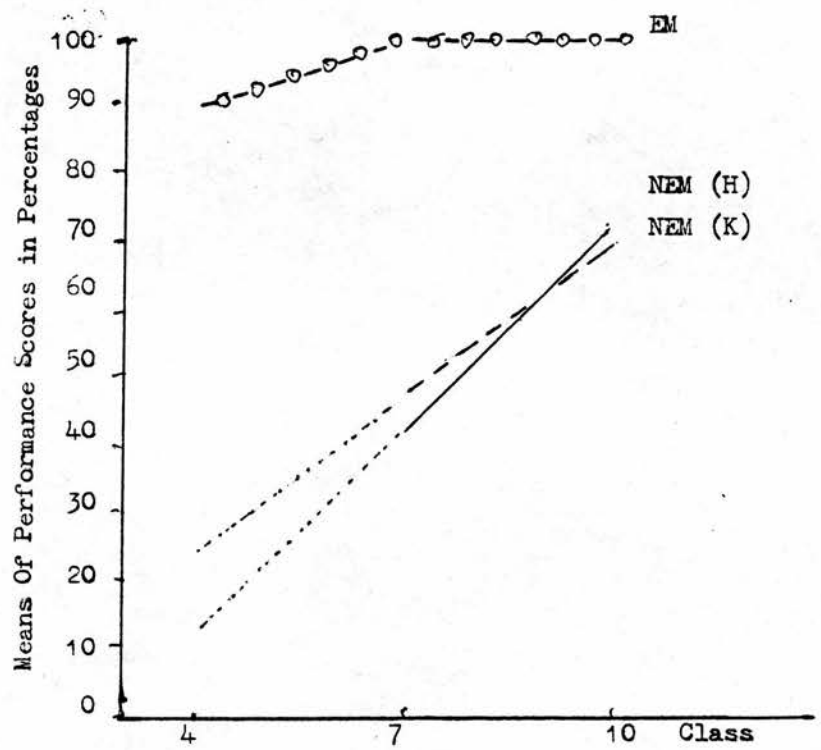


Figure 25. Word Order in Wh. Questions (Error Correction).

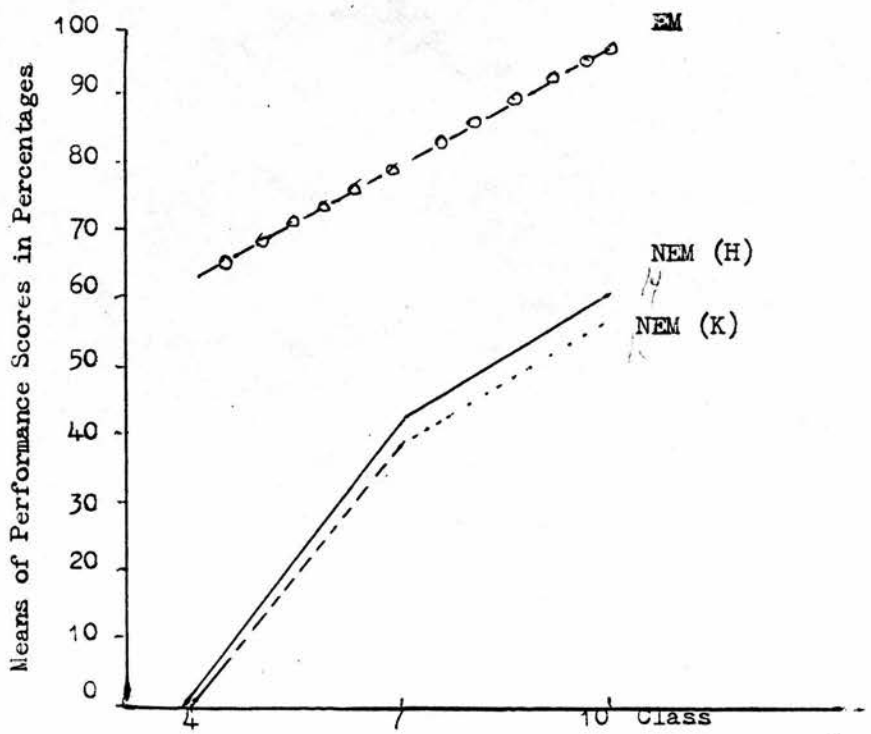


Figure 26. Word Order in Y/N Questions.(Translation).

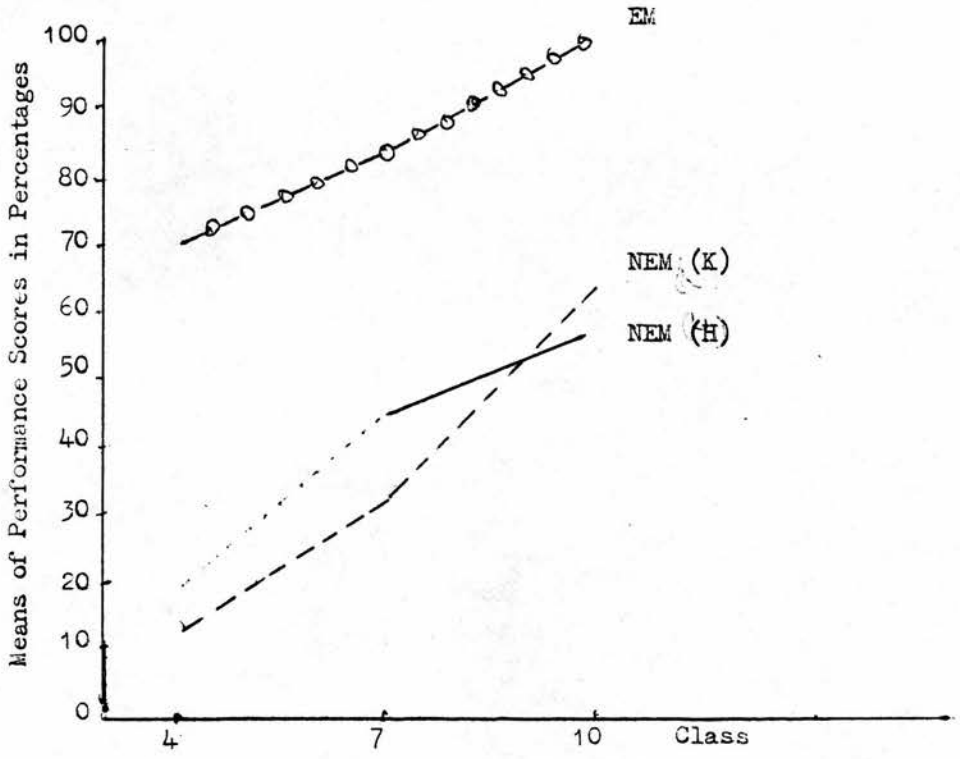
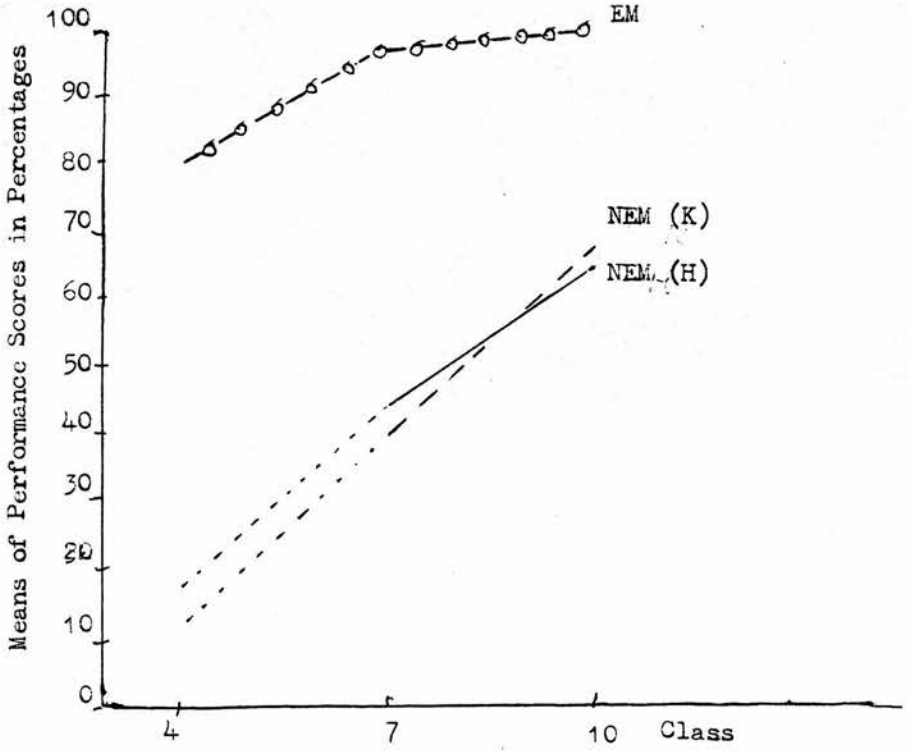


Figure 27.Word Order in Y/N and Wh.Questions.(Translation).



6.4. Variability due to Time

6.4.1. Analysis of Variance

The frequency tables in 6.2 are useful only to display the spread of subjects over the different levels of proficiency. In this part of the analysis tests of significant differences have been calculated on the basis of which the null hypotheses can be rejected or accepted. ANOVA is considered an appropriate measure to find out significant differences with class as the main factor. SPSS subprogram ANOVA was used for the computation of F values because of unequal cells in the test on negation and interrogation.

The SPSS Manual (Nie et al 1975:406) explains the positioning of sums of squares in Factorial Designs with unequal cells as follows:

Analysis of Variance : Classic Experimental Model

	Source of Variation	Sum of Squares
1.	SS due to A and B, saturated model	$SS_{A, B, AB}$
2.	SS due to A and B, additive model	$SS_{A, B}$
(a)	SS due to A, adjusted for B	$(SS_{A, B} - SS_{B})$
(b)	SS due to B, adjusted for A	$(SS_{A, B} - SS_{A})$
3.	SS due to A x B Interaction	$(SS_{A, B, AB} - SS_{A, B})$
4.	SS Residual	

Significance testing consists of the following

(a) Test the significance of interaction

(b) If the interaction is not significant, test the significance of the additive model

(c) Test the significance of each main effect.

The classic experimental approach was used because the main effects are assumed to have higher priority over interactional effects and because the two factors class and medium do not have a known causal order (though presumably medium is a better indication of success in performance scores than class).

The set of hypotheses that are to be tested are:

H_o6.1 There are no differences between classes 4, 7 and 10 in their performances in the syntax of negation

H_o6.2 There are no differences between the three classes in their performances in the syntax of Y/N questions

H_o6.3 There are no differences between the three classes in their performances in the syntax of Wh-questions

H_o6.4 There are no differences between the three classes in their performances in the syntax of interrogative sentences (Y/N and Wh-questions) in the use of the inversion rule in English, i.e. there are no differences in the acquisition of word order rule by subjects in classes 4, 7 and 10.

To test the above set of hypotheses, the following analyses have been made:

Analysis 6.4.1A ANOVA : Negation

Results of the ANOVA on all the tests in negation are given below:

ANOVA SUMMARY TABLE 39 .A

TRANSLATION TEST IN NEGATION

SOURCE OF VARIATION	SUM OF SQUARES	DF	MEAN SQUARE	F
MAIN EFFECTS	33157.211	3	11052.402	38.166
MED	32035.590	1	32035.590	*110.625
CLASS	6369.684	2	3184.842	*10.998
2-WAY INTERACTIONS	2695.445	1	2695.445	* 9.308
MED CLASS	2695.444	1	2695.444	9.308
EXPLAINED	35852.656	4	8963.164	30.952
RESIDUAL	18243.926	63	289.586	
TOTAL	54096.582	67	807.412	

* p<.01

ANOVA SUMMARY TABLE 39.B

ERROR CORRECTION IN NEGATION

SOURCE OF VARIATION	SUM OF SQUARES	DF	MEAN SQUARE	F
MAIN EFFECTS	81119.687	3	27039.895	238.198
MED	28323.320	1	28323.320	*249.504
CLASS	44331.312	2	22165.656	*195.260
2-WAY INTERACTIONS	10417.250	2	5208.625	* 45.883
MED CLASS	10417.227	2	5208.613	45.883
EXPLAINED	91536.937	5	18307.387	*161.272
RESIDUAL	8400.375	74	113.519	
TOTAL	99937.312	79	1265.029	

* p < .01.

ANOVA SUMMARY TABLE 39.C

GRAMMATICALITY JUDGEMENT IN NEGATION

SOURCE OF VARIATION	SUM OF SQUARES	DF	MEAN SQUARE	F
MAIN EFFECTS	18870.316	3	6290.105	2.940
MED	5269.973	1	5269.973	2.463
CLASS	11789.363	2	5894.680	2.755
2-WAY INTERACTIONS	1307.199	2	653.600	0.306
MED CLASS	1307.202	2	653.601	0.306
EXPLAINED	20177.562	5	4035.512	1.886
RESIDUAL	158317.312	74	2139.423	
TOTAL	178494.875	79	2259.429	

In nearly all the tables above the F values are well over the necessary level of significance (p.01)except in the grammaticality judgement task(Table 39.C)where the F ratio due to the factor class is 2.75 and the interaction of class by medium is 0.306,which fails to meet the levels of significance (3.13 at p<.05; at p<.01)

Analysis 6.4.1B. ANOVA: Interrogation

Results:

ANOVA SUMMARY TABLE 40.A

TRANSLATION TEST IN Y/N QUESTIONS

SOURCE OF VARIATION	SUM OF SQUARES	DF	MEAN SQUARE	F
MAIN EFFECTS	23275.043	3	7758.348	82.616
MED	15176.043	1	15176.043	*161.604
CLASS	9562.590	2	4781.293	*50.914
2-WAY INTERACTIONS	2648.664	1	2648.664	*28.205
MED CLASS	2648.662	1	2648.662	*28.205
EXPLAINED	25923.707	4	6480.926	*69.013
RESIDUAL	5071.070	54	93.909	
TOTAL	30994.777	58	534.393	

* p <.01.

ANOVA SUMMARY TABLE 40.B

TRANSLATION TEST IN WH. QUESTIONS

SOURCE OF VARIATION	SUM OF SQUARES	DF	MEAN SQUARE	F
MAIN EFFECTS	12045.785	3	4015.262	36.698
MED	10302.586	1	10302.586	*94.161
CLASS	4732.340	2	2366.170	*21.626
2-WAY INTERACTIONS	835.723	1	835.723	* 7.638
MED CLASS	835.720	1	835.720	* 7.638
EXPLAINED	12881.508	4	3220.377	29.433
RESIDUAL	7111.980	65	109.415	
TOTAL	19993.488	69	289.760	

ANOVA SUMMARY TABLE 40.C

ERROR CORRECTION TEST IN WH. QUESTIONS

SOURCE OF VARIATION	SUM OF SQUARES	DF	MEAN SQUARE	F
MAIN EFFECTS	20128.375	3	6709.457	45.818
MED	9872.691	1	9872.691	*67.420
CLASS	8747.543	2	4373.770	*29.868
2-WAY INTERACTIONS	1374.379	1	1374.379	* 9.386
MED CLASS	1374.378	1	1374.378	* 9.386
EXPLAINED	21502.754	4	5375.687	36.710
RESIDUAL	7907.539	54	146.436	
TOTAL	29410.293	58	507.074	

ANOVA SUMMARY TABLE 40.D

TRANSFORMATION TEST IN Y/N AND WH. QUESTIONS

SOURCE OF VARIATION	SUM OF SQUARES	DF	MEAN SQUARE	F
MAIN EFFECTS	32110.742	3	10703.578	97.343
MED	28160.195	1	28160.195	*256.100
CLASS	22697.301	2	11348.648	*103.209
EXPLAINED	32110.742	3	10703.578	97.343
RESIDUAL	3738.566	34	109.958	
TOTAL	35849.309	37	968.900	

*p<.01

ANOVA SUMMARY TABLE 40.E

GRAMMATICALITY JUDGEMENT TEST OF WH.QUESTIONS

SOURCE OF VARIATION	SUM OF SQUARES	DF	MEAN SQUARE	F
MAIN EFFECTS	53659.129	3	17886.375	64.335
MED	25022.848	1	25022.848	* 90.003
CLASS	23143.234	2	11571.617	* 41.621
2-WAY INTERACTIONS	3769.680	2	1884.840	6.779
MED CLASS	3769.682	2	1884.841	* 6.779
EXPLAINED	57428.809	5	11485.762	41.313
RESIDUAL	20295.566	73	278.021	
TOTAL	77724.375	78	996.466	

All the tables above show F.values which are highly significant at $p<.01$, for both Y/N and WH.questions, in the translation task (40.A&B), the error correction task(40.C), the transformation of sentences task(40.D)and the grammaticality judgement task(40.E).This establish that variation due to medium of instruction and class is highly significant; hence $H_o 1.2$, $H_o 1.3$, can be rejected in favour of the working hypotheses set up in 6.

Analysis 6.1.4.C. ANOVA: Word Order in Interrogative sentences.

Results:

ANOVA SUMMARY TABLE 41.A

TRANSLATION Y/N QUESTIONS: WORD ORDER

SOURCE OF VARIATION	SUM OF SQUARES	DF	MEAN SQUARE	F
MAIN EFFECTS	32811.508	3	10937.168	74.661
MED	28008.625	1	28008.625	* 191.198
CLASS	6509.578	2	3254.789	* 22.218
2-WAY INTERACTIONS	387.801	1	387.801	2.647
MED CLASS	387.801	1	387.801	2.647
EXPLAINED	33199.309	4	8299.824	56.658
RESIDUAL	7910.477	54	146.490	
TOTAL	41109.785	58	708.789	

* p<.01

ANOVA SUMMARY TABLE 41.B

TRANSLATION WH.QUESTIONS:WORD ORDER

SOURCE OF VARIATION	SUM OF SQUARES	DF	MEAN SQUARE	F
MAIN EFFECTS	28710.441	3	9570.145	97.046
MED	20717.109	1	20717.109	*210.081
CLASS	3421.985	2	1710.992	* 17.350
2-WAY INTERACTIONS	2102.867	1	2102.867	21.324
MED CLASS	2102.865	1	2102.865	* 21.324
EXPLAINED	30813.309	4	7703.324	78.115
RESIDUAL	5325.199	54	98.615	
TOTAL	36138.508	58	623.078	

ANOVA SUMMARY TABLE 41.C

ERROR CORRECTION WH.QUESTIONS:WORD ORDER

SOURCE OF VARIATION	SUM OF SQUARES	DF	MEAN SQUARE	F
MAIN EFFECTS	42146.883	3	14048.961	52.216
MED	33326.758	1	33326.758	*123.866
CLASS	11635.133	2	5817.566	*21.622
2-WAY INTERACTIONS	2536.754	1	2536.754	* 9.428
MED CLASS	2536.753	1	2536.753	9.428
EXPLAINED	44683.637	4	11170.906	41.519
RESIDUAL	14528.980	54	269.055	
TOTAL	59212.617	58	1020.907	

ANOVA SUMMARY TABLE 41.D

TRANSFORMATION TEST WORD ORDER

SOURCE OF VARIATION	SUM OF SQUARES	DF	MEAN SQUARE	F
MAIN EFFECTS	53711.617	3	17903.871	97.255
MED	38018.691	1	38018.691	*206.520
CLASS	37113.258	2	18556.629	*100.801
EXPLAINED	53711.617	3	17903.871	97.255
RESIDUAL	8468.215	46	184.092	
TOTAL	62179.832	49	1268.976	

* p.2.01.

Once again, the F values are well beyond the required level of significance at $p < .01$, except for Y/N question translation task (Table 41A). where the main effects taken separately are significant, but the interaction of class by medium of instruction is not significant at 2.647 when the required level is 4.02 ($p < .05$).

Summary :

On the basis of the results of analysis of variance, the following conclusions can be drawn:

(A) That 'time' (i.e. class) is a significant factor for variable performances of the different classes in suppliance of the correct Neg. variant. Since Tables 39 (A and B) show significant F values for 'class', we can reject $H_o 6.1$ in all the tests for negation except in the grammaticality judgement task (Table 39C) where 'class' as a factor does not show significant difference

(B) On the basis of the highly significant F values in Tables 40(D-E) which show differences in the suppliance of the correct question markers by the different classes, $H_o 6.2$ and $H_o 6.3$ are rejected. Again, 'class' is a factor which differentiates the groups

(c) Class again is a source of variation in the performance of the different groups in the use of the inversion rule in interrogative sentences. The control of word order seems to be significantly different in the lower and higher classes, as can be seen by the high F values in Tables 41 (A-D). Hence, $H_o 6.4$ can be rejected.

6.5. Variability due to Medium of Instruction

In section 5.5 of Chapter 5 it has been established that medium of instruction is a source of variation in the data on tense and aspect. In this section we will test whether the same applies for the syntax of negation and interrogation based on

quantified data. There is some indication that differences exist between NEM and EM testees in the spread of subjects in the frequency tables in section 6.2 with the NEM(K) and (H) subjects at the lower levels, and EM subjects at the higher levels ranging from 40-100% (levels 3-5). In order to find out if significant differences exist due to medium of instruction, the following null hypotheses have to be tested:

H_o6.5 There are no differences between NEM and EM subjects in their performances in negation.

H_o6.6 There are no differences between NEM and EM subjects in their performances in Y/N questions.

H_o6.7 There are no differences in the performance scores of subjects of NEM and EM schools in performances in Wh-questions.

H_o6.8 There are no differences in the performance scores of subjects of NEM and EM schools in their use of the inversion rule in interrogative structures (Y/N and Wh) in English.

Analysis 6.5.1A ANOVA : Negation

Analysis of variance was made for the data on negation based on three tasks - translation, error correction and grammaticality judgement. The results are given in the ANOVA summary Tables 39 (A-C) in section 6.4.1A. Under the factor 'Med' (medium of instruction) the F ratios are given as follows:

		Tables	F
1.	Translation Test	(39A)	**110.62
2.	Error Correction Test	(39B)	**249.50
3.	Grammaticality Judgement	(39C)	2.46

$p < .01$

On the basis of the above F values it has been established that there is significant difference between NEM and EM testees in the two production tasks (1 and 2 above) which is due to the added exposure to the target language in English medium schools. In a task based on intuitive judgement of grammaticality there is no difference between the groups from English and non-English medium schools. This indicates that the type of task is an important factor which differentiates between the two groups. (We will return to this later in section 6.6.)

Analysis 6.5.1B ANOVA : Interrogation

Tables 40A-E in section 6.4.1B show F ratios for 'Med' (medium of instruction) as follows:

		Tables	F
1.	Translation Test : Y/N Q	(40A)	**161.60
2.	Translation Test : Wh Q	(40B)	** 94.16
3.	Error Correction : WhQ	(40C)	** 67.42
4.	Transformation Test : Y/N and Wh	(40D)	**256.10
5.	Grammaticality Judgement	(40E)	** 90.00

** $p < .01$

All the F ratios are significant at p .01, therefore it can be said that in the syntax of interrogation (Y/N and Wh-questions) there are significant differences between groups defined by medium of instruction.

Analysis 6.5.1C ANOVA : Word Order in Interrogative Sentences

The F values in Tables 41 (A-D) for word order in interrogative sentences are:

		Tables	F
1.	Translation Test Y/N Q. Word Order	(41A)	**191.19
2.	Translation Test Wh-Q. Word Order	(41B)	**210.08
3.	Error Correction Test Word Order	(41C)	**123.86
4.	Transformation Test Word Order	(41D)	**206.52

** $p < .01$

Again the F ratios show highly significant differences between English and non-English medium groups in the use of the inversion rule in interrogative structures in English.

Summary :

On the basis of the ANOVA figures above with medium of instruction as a source of variation, the following statements can be made:

1. For the syntax of negation, $H_o 6.5$ can be rejected for data derived from the translation and error correction tasks, but it is accepted for the grammaticality judgement test

2. For the syntax of interrogation, $H_o 6.6$ and $H_o 6.7$ are rejected for data derived from all the tests, i.e. there are significant differences in the performance scores of subjects from NEM and EM schools in their acquisition of interrogation

3. For word order or the acquisition of the inversion rule for Y/N and Wh-questions, $H_o 6.8$ is rejected since there are very significant differences in the use of subject-verb inversion in interrogative sentences.

On the whole it can be said that the performances of English and non-English medium subjects in negation and interrogation are significantly different; thus medium of instruction is a source of variation in the data.

Analysis 6.5.2. Scheffe Tests of Significance for Pair-wise Comparisons

Significant interactional effects of the two factors, medium and class, made it necessary to compare group means to find out which group is significantly different from which other group(s). As in Chapter 5 we chose the S-method of comparisons of group means, calculating that t values from the output of the ANOVA program (means, degree of freedom associated with the residual mean square and the mean square). Tables 42, 43 and 44 were calculated manually; but Table 45(A-C) showing a significant difference between three composite groups (K4, K7, K10 = NEM(K)), (H4, H7, H10 = NEM(H)), (E4, E7, E10 = EM) are results of the computer based Subprogram Oneway with multiple range tests, for post hoc comparisons.

Analysis 6.5.2A S-tests for Negation

Results

TABLE 42A Translation Test : Negation

K4	H7	K7	H10	K10	E4	E7
24	55	61	67	69	97	99
240	550	610	670	690	970	990
K4	*310	370	430	450	730	750
	H7	60	120	140	420	440
		K7	60	80	360	380
			H10	20	*300	*320
				K10	280	*300
					E4	20
						E7

Calculated t value

$p < .01 = 344$

$p < .05 = 295$

TABLE 42B Error Correction Test : Negation

H4	K4	K7	H7	E4	H10	E7	E10
0	10	52	67	75	84	85	100
H4	100	520	670	750	840	850	1000
	K4	420	570	650	740	750	900
		K7	150	230	320	330	480
			H7	80	170	180	330
				E4	90	100	250
					H10	10	160
						E7	150
							E10

Calculated t value

$p < .01 = 335$

$p < .05 = 288$

In Table 42A K4 is significantly different from all other groups in the translation test, while K7, H7, K10 and H10 are not significantly different from each other; nor is E4 with E7, which are the two best groups (E10 missing) and are significantly different from all the other groups (except K10 which is not significantly different from E4). The overall results therefore suggest that the two groups from EM have means far above those in NEM.

In Table 42B H4, K4 and K7 are significantly different from all the other groups; H7 and E4 are significantly different only from the highest group E10, while H10, E7 and E10 have means which are not significantly different.

Comparison between the two tests in negation shows that H10 has improved in error correction test. The same can be said about H7, which is significantly different from E4 and E7 in the translation test but not in the error correction test. Subjects in K7 probably performed consistently in both tests.

Analysis 6.5.2B S-tests for Interrogation

Results

TABLE 43A Translation Test : Y/N Questions

K4	H7	K7	E4	K10	H10	E7	E10
12	45	50	71	71	81	97	100
88	331	368	523	523	597	715	737
K4	243	280	435	435	509	627	649
	H7	37	192	192	266	384	669
		K7	*155	*155	229	347	369
			E4	K10	44	192	214
					74	192	214
					H10	118	140
						E7	22
							E10

Calculated t value

$p < .01 = 178$

$p < .05 = 153$

TABLE 43B Translation Test : Wh-questions

K7	H7	K10	E4	H10	E7	E10
67	67	77	79	83	100	100
564	564	648	665	699	842	842
K7	H7	84	101	135	278	278
		84	101	135	278	278
		K10	17	51	194	194
			E4	34	177	177
				H10	147	147
					E7	-
						E10

Calculated t value
$p < .01 = 194$
$p < .05 = 166$

TABLE 43C Error Correction Test : Wh-questions

K4	K7	H7	E4	H10	E7	E10
47	36	54	76	82	86	98
40	303	455	640	690	724	825
K4	263	415	600	650	684	785
	K7	152	335	387	421	522
		H7	185	235	269	370
			E4	50	84	185
				H10	34	135
					E7	101
						E10

Calculated t value
$p < .01 = 226$
$p < .05 = 193$

In Table 43B only E7 and E10 are significantly different from all the other groups except H10. This indicates that all the groups except E7, E10 and H10 have cell means which are very close together. In other words, the difficulty level of Wh-questions is not significantly different for K7, H7, K10 and E4. Compare this with the error correction task (Table 43C) and the translation task of Y/N questions (Table 43A) where only one group - K4 (H4 missing) shows the poorest performance (mean 4.75) so that it is significantly different from all other groups, which are close together in means. Both these tables show that error correction in Wh-questions and Y/N translation tests are comparatively easy compared to Wh-questions translation test.

In these tables EM is significantly different from NEM(K) and NEM(H) at $p < .01$ while NEM(K) and NEM(H) are significantly different only in Y/N questions at $p < .05$.

Analysis 6.5.2C Word Order in Interrogative Sentences

Results

TABLE 44A Translation Test : Wh-question Word Order

H7	K7	K10	H10	E4	E7	E10
42	47	70	73	90	100	100
354	396	589	615	758	842	842
H7	42	235	261	404	488	488
	K7	192	219	362	446	446
		K10	26	169	253	253
			H10	142	227	227
				E4	84	84
					E7	-
						E10

Calculated t value

$p < .01 = 186$

$p < .05 = 159$

TABLE 44B Translation Test : Y/N Word Order

K4	K7	H7	H10	K10	E4	E7	E10
13	33	45	57	63	70	94	100
96	243	331	420	464	516	693	737
K4	147	235	324	368	420	597	641
	K7	88	177	*221	273	450	494
		H7	89	133	185	362	406
			H10	44	96	273	317
				K10	52	229	536
					E4	177	221
						E7	44
							E10

Calculated t value

$p < .01 = 222$

$*p < .05 = 191$

The two tables for Y/N and Wh-questions (translation test) again show better performance of EM groups in word order. Compared with Table 44A, K7 shows better performances than H7 in word order in Wh-questions (Table 44B).

In comparison with Table 43 (A, B) for suppliance of the correct question marker in Y/N and Wh-questions, the above tables for accuracy in word order show that even the lowest EM group (E4) performs better than the highest NEM groups (K10 and H10). This again indicates that word order in questions is more difficult for NEM subjects than the suppliance of aux.

Analysis 6.5.2D Scheffe tests with Medium and Class as Factors for Combined Groups

As stated in the introductory remarks of 6.5.2. the Scheffe test results given so far have been calculated manually, but the Scheffe tests for the tables in this section have been calculated by Subprogram Oneway of SPSS. The combinations of groups in the tables according to school (NEM(K), NEM(H) and EM) or class (4, 7, 10) give a clearer picture of significant or non-significant differences between schools with three different languages as medium of instruction, and differences between the three different classes for a study development along the IL continuum.

Scheffe Table 45.A

Interrogation with Medium of Instruction as Factor

		NEM(K)	NEM(H)	EM
1.Translation WH.Q	NEM(K)	-	NS	S
	NEM(H)	NS	-	S
2.Translation Y/N Q	NEM(K)	-	NS	S
	NEM(H)	S*	-	S
3.Error Correction WH.Q	NEM(K)	-	NS	S
	NEM(H)	NS	-	S
4.Transformation (Y/N & WH.Q)	NEM(K)	-	S	S
	NEM(H)	-	-	NS

Note:in 4 only E4 represents EM.

Scheffe Table 45.B

Interrogation with Class as Factor

		Four	Seven	Ten
1.Translation WH.Q	Four	-	NS	S
	Seven	NS	-	S*
2.Translation Y/N Q	Four	-	S*	S
	Seven	-	-	S
3.Error Correction WH.Q	Four	-	S	S
	Seven	-	-	S
4.Transformation (Y/N & WH.Q)	Four	-	NS	S*
	Seven	NS	-	NS
5.Translation (Y/N & WH.Q)	Four	-	NS	S*
	Seven	NS	-	NS

Scheffe Table 45.C

Interrogation Word Order with Class as Factor.

		Four	Seven	Ten
1. Translation WH.Q	Four	-	-	-
	Seven	S	-	S
2. Translation Y/N Q	Four	-	NS	S
	Seven	NS	-	NS
3. Error Correction WH.Q	Four	-	NS	NS
	Seven	NS	-	NS
4. Transformation (Y/N & WH.Q)	Four	-	S	S
	Seven	-	-	S
5. Translation (Y/N & WH.Q)	Four	-	S	S
	Seven	NS	-	S*
6. Grammaticality Judgement	Four	-	S	S
	Seven	NS	-	NS

Table 45A shows that consistently NEM(K) and NEM(H) are different from EM, except in 4 (translation test) where NEM(H) is not significantly different from EM. One the other hand, NEM(K) and NEM(H) are always on the same level of proficiency, as seen by the non-significant differences between the two (except in 2 and 4).

In Table 45B class is the main factor. Class 4 is always significantly different from class 10; class 7 is also different from class 10 except in 4 and 5 (translation and transformation tests). Classes 4 and 7 are not significantly different in three out of five cases, but are so in Y/N translation task (2) and error correction task (3). In Table 45C all three classes are significantly different from each other, except 7 and 10 in Y/N translation task.

Analysis 6.5.3. Multiple Classification Analysis

Where there has been no interactional effects of medium by class which are significant, e.g. Table 39C (grammaticality judgement in negation F = 0.306) and Table 41A (Word Order of Y/N questions F = 2.64, p .05 = 4.02), a multiple classification analysis was computed to find out the proportions of variation contributed by each of the factors, medium and class. The figures are given below.

Results

TABLE 46A Multiple Classification : Grammaticality Judgement in Negation

Grand Mean = 81.69

VARIABLE + CATEGORY	N	Unadjusted Dev'n	Unadjusted Eta	Adjusted For Independents Dev'n	Adjusted For Independents Beta
MED 1 Non-English	50	-7.29		-6.36	
2 English	30	12.15		10.60	
			0.20		0.17
CLASS 1 Four	30	15.94		-15.23	
2.Seven	30	5.23		5.94	
3.Ten	20	16.06		13.94	
			0.28		0.26
Multiple R Squared					0.106
Multiple R					0.325

Note: The overall relationship between scores and the two factors MED and CLASS is .106.
The proportion of variation in scores explained by the additive effects of MED and CLASS is .325. Unadjusted Eta at .20 goes down to .17 after adjustment; this shows that there is a relationship between the two factors MED and CLASS.
Other statistics will be discussed.

TABLE 46B Multiple Classification : Word Order in Y/N questions

Grand Mean = 67.50

VARIABLE + CATEGORY		N	Unadjusted Dev'n	Eta	Adjusted For Independents Dev'n	Beta
MED	1 Non-English	29	-21.47		-25.04	
	2 English	30	20.76		24.20	
				0.80		0.93
CLASS	1 Four	10	2.93		-21.27	
	2 Seven	29	-8.73		-0.67	
	3 Ten	20	11.19		11.61	
				0.34		0.42
Multiple R Squared						0.798
Multiple R						0.893

Note: Interpretation of the statistics is as in the previous table.

Note: Interpretation of the statistics is as in the previous table.

The relatively low percentages of the contribution to variation by Medium ('Med') at 0.17 or class at 0.26, support the findings of the analysis of variance in Table 39C. This shows that the task - grammaticality judgement of negative sentences - is easy, so that even the lowest groups in NEM are at par with the other groups. This contrasts with the high proportion of variation in scores due to medium of instruction at 0.93 in the word order of Y/N questions (5) in the translation test, in Table 46B. Compare this with the lesser value due to class at 0.42 in the same table.

(5) The problem of word order in interrogation by NEM subjects has been shown in the significant F ratios in ANOVA Table 40E (grammaticality judgement of Wh-questions) and in ANOVA Table 40.

6.6. Variability due to Task Differences

In 5.6 of Chapter 5, dealing with tense and aspect, we have seen that task differences account for variability in the data. Task differences can be made more transparent by breaking down tasks into a set of characteristics. This will also explain why some tasks are easier than others. Task characterizations are given as follows:

Translation

1. Production of a full sentence
2. Stimuli : L1 sentence
3. Focus on communication

Transformation of sentences

1. Production of part of a sentence
2. Stimuli : L2 positive declarative sentence
3. Focus on communication

Error correction

1. Recognition of full sentence
2. Correction of part/ full sentence
3. Stimuli : Negative/ Interrogative sentence
4. Focus on form

Grammaticality Judgement

1. Recognition of grammaticality of a full sentence
2. Stimuli : Negative/ Interrogative sentence
3. Focus on form

In the previous analyses (6.4.1., 6.5.2 and 6.5.3) we have seen that (i) there is no significant difference between group means in the grammaticality judgement task in negation, (ii) different tasks produce shifts in the patterns of significant differences in the Scheffe tests. These findings point to possible differences between tasks, as has been the case with the three tasks in tense and aspect (Chapter 5). Our next analysis therefore will be to look for significant differences between tasks and in order to do so we set up the following hypotheses:

H_o6.9 There is no significant difference between translation and error correction tasks in negation.

H_o6.10 There is no significant difference between error correction and grammaticality judgement tasks in negation

H_o6.11 There is no significant difference between translation and grammaticality judgement tasks in negation

H_o6.12 There is no significant difference between translation and transformation tasks in Y/N and Wh-questions (combined)

H_o6.13 There is no significant difference between translation and error correction of Wh-questions

H_o6.14 There is no significant difference between error correction and grammaticality judgement of Wh-questions

H_o6.15 There is no significant difference between grammaticality judgements of negative and interrogative (Wh) questions

H_o6.16 There is no significant difference between translation and transformation tasks (in word order in interrogative sentences)

H_o6.17 There is no significant difference between translation and error correction tasks for word order in Wh-questions.

Analysis 6.6.1. T-tests

SPSS subprogram T-test was used to find the value of student's t to test for significant differences between means of samples. The formula (6) for the calculation of t is:

$$t = \frac{X_1 - X_2}{\sqrt{\frac{E_{x1}^2 + E_{x2}^2}{N_1 + N_2 - 2} \cdot \frac{N_1 + N_2}{N_1 N_2}}}$$

Where X_1 and X_2 = mean of the two samples

$E X_1^2$ and $E X_2^2$ = sum of squares in the two samples

N_1 and N_2 = numbers of cases in the two samples

Analysis 6.6.1A. T-test in Negation

Results of the T-tests are given in the table below:

TABLE 47 T-tests between Tasks in Negation

	Translation	Grammaticality Judgement
Translation	-	-3.76 (57)
Error correction	0.74 (57)	-4.23 (79)

(6) Guildford and Fruchter (1978:157).

For 57 df. at the .01 level, the significant t value is 2.660 and from the above table we see that there are no significant differences between translation and error correction tasks, but either of these tasks compared with grammaticality judgement show significant differences. It would appear therefore that while translation and error correction are similar in that they are both production tasks, grammaticality judgement on the other hand require different degrees of control of linguistic structures. Judgement of grammaticality of ready-made written sentences can be interpreted as being easier than translation from the L1 or error correction where one has to supply the right Neg. element in a sentence. This is also in keeping with the view that production and comprehension/ recognition skills differ in a learner.

On the basis of the above results, H_o6.9 is accepted, while H_o6.10 and H_o6.11 are rejected since there is no significant difference between the two tasks compared.

Analysis 6.6.1B T-test in Interrogation

TABLE 48 T-tests between Tasks in Interrogation (7)

	C	D	E
	Transformation	Error correction	Grammaticality judgement
A. Translation	-1.11 (39)	4.34 (58)	x
B. Error correction	x	x	-6.24 (78)

T-test between translation and transformation tasks which combine Y/N and Wh-questions (Table 48A) show no significant difference (t = 1.11), hence H_o6.12 is accepted.

There are significant differences between translation and error correction tasks for Wh-questions (t = 4.34, $p \leq .001$) and between error correction and grammaticality judgement tasks of Wh-question (t = 6.24, $p < .001$);on the basis of these results we reject H_o6.13 and H_o6.14. For Wh-questions therefore all three tasks are significantly different from each other.

(7) A and D, B and E t-tests are for Wh-questions.

Analysis 6.6.1C T-test in Word Order in Interrogative Sentences

Results are given in Table

TABLE 49 T-tests between Tasks : Word Order in Interrogation (8)

	B	C
	Transformation	Error correction
A. Translation	-0.74 (39)	5.14 (58)

The t-value between translation and transformation tasks at 0.74 is not significant, therefore the acquisition of word order in the translation and transformation tasks are not different. Since both are production tasks, it is logical that the students should produce consistent results, i.e. that students (EM and same class 10 NEM) who have learned the inversion rule should always use it, and students who have not acquired the rule would produce non-inverted interrogative sentences. However, the difference between the translation and error correction tasks is significant ($t = 5.14$, $p < .001$). Though error correction too is a production task, many subjects usually correct the question marker, not the word order. Secondly, as defined by the task characteristics in the introductory remarks of 6.6, error correction involves only the the correction of a given question, but translation and transformation tasks involve production of a full sentence from an L1 or an L2 (declarative sentence).

(8) A and C t-test is for Wh-questions only.

On the basis of the above figures, H_o6.16 is accepted but H_o6.17 is rejected.

Analysis 6.6.1D Grammaticality Judgement of Negative and Interrogative Sentences

Results

TABLE 50 T-test on Grammaticality Judgement of Negative and Wh-interrogative Sentences

	Gram. Judgement of Neg.
Gram. Judgement of Wh-Q	-2.68 (78)

On the basis of the significant t value in the above, ($t = 2.68$, $p < .01$) H_o6.15 can be rejected since there is significant difference in the grammaticality judgements of negative and interrogative sentences. This shows that the type of structure - negative or interrogative - does influence performances though the task may be the same.

Summary :

In negation, grammaticality judgement task is different from translation and error correction tasks; the last two tasks are not significantly different from the other. This can be interpreted as a difference between a recognition task and the two production tasks.

In the combined scores of Y/N and Wh-questions in translation and transformation tasks, there is no significant differences. However, each of the tasks - translation, error correction and grammaticality judgement - are significantly different from each other for Wh-questions. This is in contrast to negation where only grammaticality judgement is different from

the other two. This indicates that the syntax of negation and Wh-questions do not produce the same results. Compare this again with the results in 6.6.1C which shows differences between negative and interrogative sentences even when the task is the same (grammaticality judgement).

It is interesting to note that tests of significant differences for word order between any two tests (translation and transformation; translation and error correction) produce the same results as for the suppliance and insertion of the Aux. in interrogative sentences: the first two pairs produce non-significant results, and the latter pair show significant differences.

Analysis 6.6.2. Correlation Analysis

In the previous section the relationship of different tasks have been in terms of significant differences. In this section the relationship will be examined in the correlation analysis to see if two given tasks correlate significantly or not.

Analysis 6.6.2A. Correlation Analysis in Negation Results

Pearson correlation coefficients were computed for the tests in negation and the results are given below:

TABLE 51A. Pearson Correlation of Tasks : Negation

	r	p	n
1. Translation with Error Correction	0.5599	0.000	58
2. Translation with Grammaticality Judgement	0.5112	0.000	58
3. Error Correction with Grammaticality Judgement	0.3433	0.002	80

The above figures show better correlations between the two production tasks - translation and error correction - than those between a production and recognition task for negation.

Analysis 6.6.2B. Correlation Analysis in Interrogation

For interrogation correlation analysis has been made for Y/N and Wh-questions, in some cases singly, while in other cases they have been combined. Also, correlations have been made on the basis of tasks as well as on the basis of question-type - Y/N or Wh-questions - to see if the same task with different question type produce high correlations. For convenience of the presentation of the results, the r's have been arranged in descending order in the table below:

TABLE 51B . Pearson Correlations of Tasks : Interrogation

	r	n
1. Translation (Wh-Q) with translation (Y/N and Wh-Q)	1.0000	70
2. Error Correction (Wh-Q) with Grammaticality Judgement (Wh-Q)	0.8861	79
3. Error Correction (Wh-Q) with Translation (Y/N)	0.8823	67
4. Transformation (Y/N, Wh-Q) with Error Correction (Wh-Q)	0.8813	40
5. Transformation (Y/N, Wh-Q) with Translation (Y/N)	0.8443	48
6. Translation (Wh-Q) with Translation (Y/N)	0.7976	70
7. Error Correction (Wh-Q) with Translation (Y/N and Wh-Q)	0.7125	59
8. Error Correction (Wh-Q) with Translation (Wh-Q)	0.7112	59
9. Transformation (Y/N and Wh-Q) with Grammaticality Judgement (Wh-Q)	0.6841	40
10. Transformation (Y/N and Wh-Q) with Translation (Y/N and Wh-Q)	0.5639	40
11. Transformation (Y/N and Wh-Q) with Translation (Wh-Q)	0.5632	40
12. Translation (Wh-Q) with Grammaticality Judgement	0.5024	59

Note: For all cases p = 0.000

The figures above are self-explanatory. Comparison of 2 above with 3 in Table 51A show differences in results for negative and interrogative structures. However, the results tally for comparisons of translation with grammaticality judgement since both tables show very low correlations between the two tasks.

Secondly, high correlations are evident when the task is the same (in 1 and 6 above) but with different question types (Y/N or Wh-Q).

Analysis 6.6.2C. Correlation Analysis in Word Order in Interrogative Sentences

The results of Pearson's correlation analysis for word order and the use of the inversion rule is given below:

TABLE 51C. Pearson's Correlations of Tasks : Word Order in Interrogative Sentences

	r	n
1. Translation (Y/N) with Error Correction (Wh-Q)	0.8341	59
2. Translation (Y/N) with Grammaticality Judgement (Wh-Q)	0.8072	67
3. Translation (Y/N) with Translation (Wh-Q)	0.8047	70
4. Translation (Wh-Q) with Error Correction (Wh-Q)	0.8003	59
5. Error Correction (Wh-Q) with Grammaticality Judgement (Wh-Q)	0.7622	59
6. Translation (Y/N) with Translation (Y/N and Wh-Q)	0.7577	48
7. Error Correction (Wh-Q) with Transformation (Y/N and Wh-Q)	0.7317	30
8. Transformation (Y/N and Wh-Q) and Grammaticality Judgement	0.6702	40
9. Transformation (Y/N and Wh-Q) and Translation (Wh-Q)	0.6600	40
10. Translation (Wh-Q) with Grammaticality Judgement (Wh-Q)	0.6266	59

Note: For all cases p = 0.000

In the above table translation and error correction shows high correlations (1 and 4). For word order, grammaticality judgement also correlates highly with translation (Y/N) or error correction (2 and 5) but not with translation (Wh-Q) in 10 above.

As in Table 51B the same task with different interrogative types (Y/N or Wh-Q) show high correlations (3 and 6) above.

Analysis 6.6.3. Correlation Analysis : Scattergrams

Correlation analysis above show only the strength and direction of the correlations on the data of all the subjects. In this section scattergrams have been printed to show the trend of individual subject's performances in different tasks. Scattergram 6 comparing performances between translation and error correction is given below as an example; other scattergrams are given in Appendix VI.

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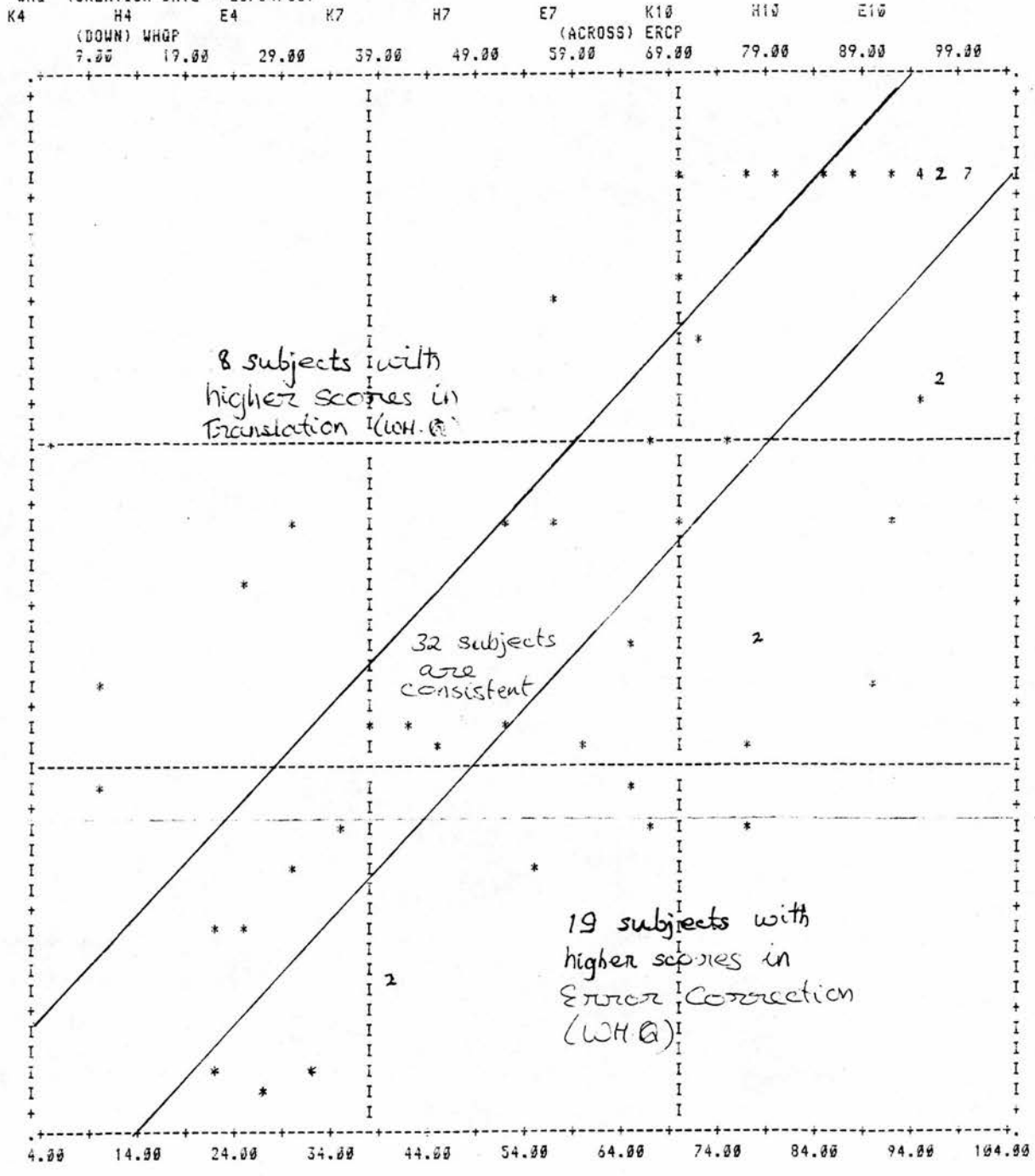
SCATTERGRAM 6. WH.QUESTIONS: TRANSLATION AND ERROR CORRECTION TASKS.

WHQ (CREATION DATE = 25/04/83)



ØSTATISTICS..

Ø CORRELATION (R)-	0.73107	R SQUARED -	0.53446	SIGNIFICANCE	0.00000
Ø STD ERR OF EST -	13.97257	INTERCEPT (A) -	45.01991	SLOPE (B)	0.49366
Ø PLOTTED VALUES -	59	EXCLUDED VALUES-	Ø	MISSING VALUES	31

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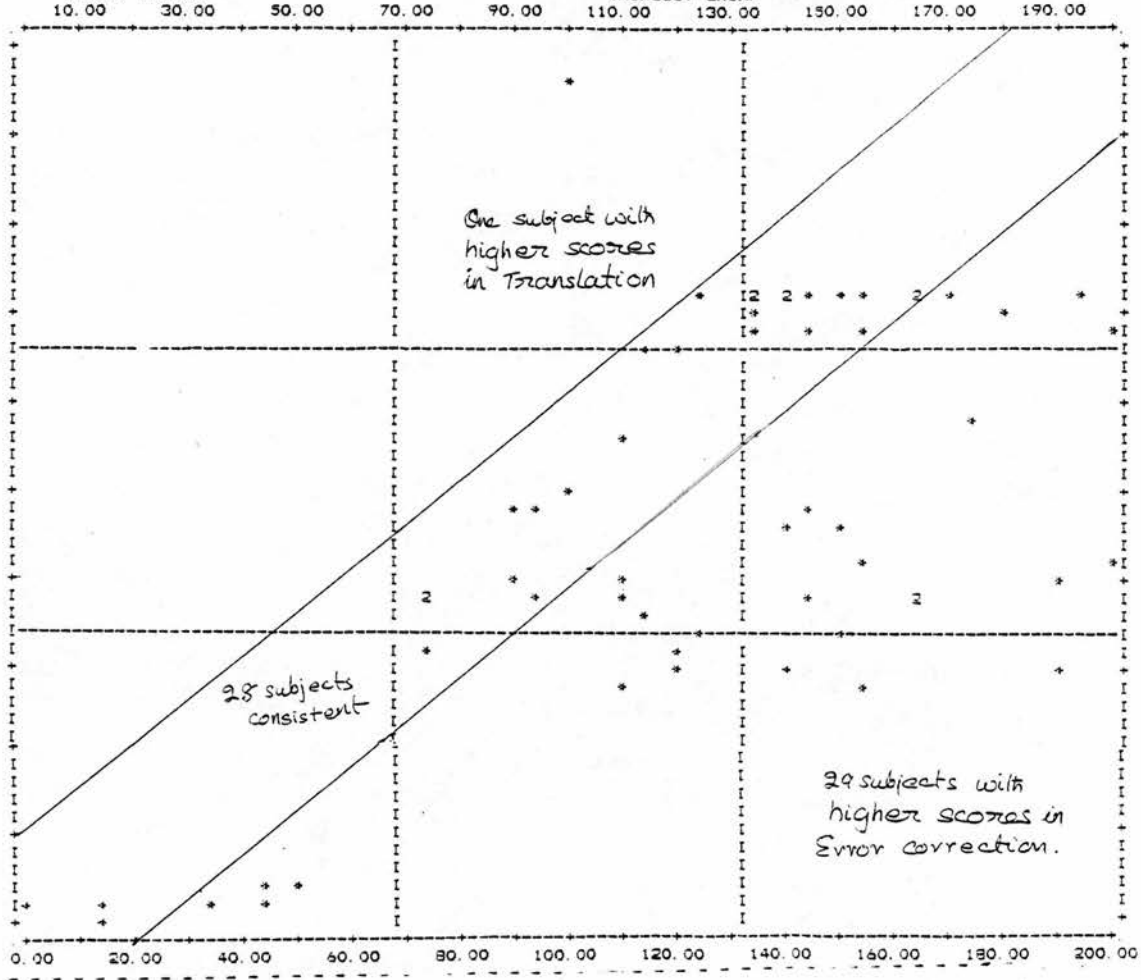
PROGRAM SCATTERGRAM 7. NEGATION: TRANSLATION AND ERROR CORRECTION TASKS. 22/06/83 PAGE 2

PRO (CREATION DATE = 23/06/83)

K4 H4 E4 K7 H7 E7 K10 H10 E10

(DOWN) TRANEGP (ACROSS) ERCNP

10.00 30.00 50.00 70.00 90.00 110.00 130.00 150.00 170.00 190.00



0.00 20.00 40.00 60.00 80.00 100.00 120.00 140.00 160.00 180.00 200.00

NEGATIVES PROGRAM 23/06/83 3

STATISTICS.

CORRELATION (R)-	0.63771	R SQUARED	- 0.40668	SIGNIFICANCE	- 0.0000
STD ERR OF EST -	23.60229	INTERCEPT (A)	- 16.15327	SLOPE (B)	- 0.4097
PLOTTED VALUES -	58	EXCLUDED VALUES-	0	MISSING VALUES	- 32

The above scattergram of performances between translation and error correction show the spread across, rather than upwards. This indicates better performances in the second task. This result is consistent with the assumption that error correction is an easier task than translation since it contains ready-made sentences which have to be corrected, while a translation task requires the reco ding of meaning from the L1, then the construction of an entire sentence in L2 - a task which involves meaning, syntax and morphology.

6.7. Implicational Analysis

The last analysis for negation and interrogation is implicational scaling. This will reveal whether the acquisition of the different Neg. variants and interrogative markers could be arranged in an implicational order of difficulty. Implicational analysis will also be used to examine the spread of subjects in an implicational pattern. Thus two assumptions are made: (i) that variables (here Neg. variants or question markers) are related to each other implicationally (see 2.6); (ii) that the positions of subjects in the implicational table reveal their level of proficiency or their acquisition of certain variants. In the subsequent tables acquisition and correct use of the different variants are marked by a + (for marks 60% and above) and incorrect use or non-acquisition is marked by a - sign.

Unlike the implicational analysis of tense and aspect (5.3.1) which was computer-based, scaling of Neg. variants and interrogative markers was done manually. This has the advantage of presenting the position of each individual subject in the scales.

Since most learners in NEM class 4 have not acquired the Neg. variants or interrogative markers, and because the tests were different for NEM class 4 (in that they were much simpler) data for the Implicational Scales are taken only from classes 7 and 10 (n = 60). Again, since all the subjects in EM7 and EM10 have categorically acquired negation and interrogation, the implicational scales below are more indicative of the variants as acquired by the other NEM groups.

Any variant that occurs in at least three sentences in the translation test was considered for the scales and those less than that are eliminated.

Analysis 6.7.3. Implicational Analysis in Negation

The different Neg. variants have been divided into related sets and analysed separately. Thus variants related to the verb BE have been analysed as a set, as those related to DO; and to modal verbs. The results are given below:

Table 52A

Implicational Scales for Neg. Variants Aux. Be

	Subj.	Is	Are	Am	Was	Were
E 7	51 : : 60	--- Between 60 - 100% ---				
E 10	81 : : 90	--- Categorical use ---				
H 10	71 : : 75	--- Between 60 - 100% ---				
K 10	63	100	100	100	100	100
	65	100	100	100	100	100
	43	100	(50)	100	(33)	100
	64	100	100	100	100	83
	78	100	100	100	100	100
	80	100	100	100	100	83
K 10	61	100	100	100	100	83
	62	100	100	100	100	83
	66	100	100	100	100	100
	67	100	100	100	100	100
	68	100	100	(50)	100	83
	69	100	100	100	100	100
	70	100	100	100	100	100
	31	100	(50)	100	(33)	66
	79	100	100	100	100	100
H 7	41	(50)	100	100	100	83
	46	100	100	100	(33)	83
K 7	33	(50)	(33)	100	100	66
	34	(50)	66	100	100	83
	39	100	66	100	67	66
H 7	42	100	100	100	100	83
	45	100	100	100	100	100
	47	100	100	100	100	33
	48	100	100	100	33	50
	49	100	100	100	33	50
	50	100	100	100	33	50
	44	100	100	0	33	33
	55	100	100	0	33	50
K 7	36	100	100	0	(67)	33
	37	100	50	0	33	33
	40	100	50	0	33	(66)

Table 52B.

Implicational Scales for Neg. Variants (Aux. Do)

	Subj	Did	Do	Does
E 7	31	--- Between 60- 100 %-------		
	60			
E 10	81	---Categorical Use----------		
	90			
	75	100	100	66
	76	100	100	83
	71	83	100	66
H 10	73	100	100	66
	74	83	83	83
	77	83	100	83
	78	83	100	66
	80	83	100	66
	63	100	100	66
	65	100	100	83
K	69	100	100	66
	66	50	100	66
10	61	50	100	83
	50	100	100	66
	44	50	83	66
K	33	50	66	66
7	38	50	100	66
	79	100	100	66
K	64	83	100	50
10	62	83	100	50
	32	66	100	33
	34	66	83	33
	35	66	83	16
K	36	66	66	16
7	37	66	66	50
	40	83	83	33
	41	66	100	50
	42	100	100	33
H				
7	43	100	50	16
	46	83	50	33
	48	83	50	50
	72	50	50	16
	70	50	50	50
	68	50	50	50
	67	50	50	33
H 7	45	50	50	16
	47	50	50	33
	49	50	50	33
K	39	33	50	16
7	31	50	50	33

Table 52C.

Implicational Scales for Neg. Variants (Aux. Modals).

	Subj.	Can	Will	Must
E 7	51–60	Between 60- 100 %		
E 10	81–90	Categorical Use		
H 10	71	100	100	83
	73	100	100	83
	74	100	100	83
	75	100	100	100
	76	100	100	100
	77	100	100	83
	79	100	100	83
K 10	61	100	83	66
	62	100	100	83
	63	100	100	66
	64	100	100	83
	65	100	100	66
	66	100	100	100
	70	100	100	100
H 7	48	83	100	66
	50	83	83	66
	78	100	100	66
K 10	67	100	100	50
	68	100	100	50
	69	100	100	50
	36	(50)	83	50
	80	100	100	50
	40	83	83	50
K 7	33	83	83	33
	34	100	66	50
	35	83	83	50
	37	66	83	50
	72	83	83	50
H 7	41	100	83	50
	42	100	100	50
	46	100	100	33
	43	100	50	33
	44	83	50	33
	45	100	50	50
	47	50	50	33
	48	50	50	(66)
	49	50	50	(66)
K 7	32	50	50	33
	38	50	50	33
	39	50	50	50
	31	50	50	33

The coefficient of reproducibility for all the three sets are quite high at 0.96, 0.9723 and 0.9874; well above the minimum of 0.90 necessary for a valid implicational scale. The coefficient of reproducibility has been calculated according to the following formula:

$$R = 1 - \frac{\text{No. of deviations}}{\text{No. of rows x No. of columns}}$$

Where deviations (ringed in the tables) are the signs (+ or -) not confirming to the general pattern. Thus for Table 52A the calculation is as follows:

$$R = 1 - \frac{12}{60 \times 5}$$

$$= 1 - 0.04$$

$$= 0.96$$

The coefficient of reproducibility in the other two tables have also been calculated in the same way, since all three coefficients are above 0.90, we conclude that all the three are valid scale types.

Secondly, the positions of the two best groups (E7 and E10) at the top of the tables, and subjects from K7 and H7 at the bottom, support the findings in most of the previous analyses.

Analysis 6.7.2. Implicational Analysis in Interrogation

Results of implicational analysis of Y/N and Wh-questions are given below:

Table 52E

Implicational Scales for Y/N Question Operators

	Subj.	Modal	Do	Be	Did
E 7	51 … 60	- - - - Between 60 - 100% - - -			
E 10	81 … 90	— — — — Categorical use — — — —			
	71	100	80	100	60
H 10	75	100	100	90	100
	76	100	100	80	100
	77	100	80	100	80
	79	90	80	70	60
	73	100	(40)	80	60
K 10	63	90	80	60	60
	65	80	60	80	60
	66	100	80	80	60
	67	80	80	80	80
	68	80	(40)	90	60
	69	90	60	80	80
H 7	41	60	60	70	60
	50	70	60	60	60
	49	60	60	(50)	60
	44	(50)	60	(50)	60
	40	70	80	60	60
K 7	33	60	60	(50)	60
	35	60	60	(50)	60
H 10	72	80	60	90	40
	74	80	60	80	40
	78	(50)	60	100	40
	80	70	60	100	40
K 10	61	70	(40)	80	40
	62	70	60	70	40
	70	(50)	60	70	40
	42	60	60	50	40
K 7	32	70	60	40	20
	34	60	60	50	40
	64	70	40	50	(60)
H 7	45	70	40	(70)	40
	46	60	40	50	(60)
	36	60	20	80	40
K 7	39	70	20	80	0
	38	60	40	50	0
	37	60	20	50	0
	43	60	40	50	0
H 7	47	60	20	50	0
	48	50	0	50	40
	31	40	0	50	0

Table 52F

Implicational Scales for Wh-Questions

	Subj.	Will	Can	Did	Be	Do
E	51		Between 60 - 100%			
7	60					
E	81		Categorical use			
10	90					
H	71		Between 60 - 100%			
10	77					
	80					
	62	100	100	75	100	75
K	68	100	100	75	90	75
10	69	67	100	100	90	75
	41	67	100	(50)	70	50
H	42	100	100	75	60	50
7	43	67	67	75	60	50
	47	67	67	75	60	25
	48	100	67	75	60	50
H	78	100	100	75	80	50
10	79	100	100	100	100	50
	63	100	100	75	70	50
K	64	67	100	75	80	50
10	66	67	67	75	90	50
	45	100	67	(50)	80	50
H	46	67	67	(50)	60	50
7	49	67	100	75	60	50
	33	100	(33)	75	60	50
K	36	100	100	75	80	25
7	61	100	(33)	75	50	25
K	65	67	100	100	50	50
10	66	67	(33)	75	50	50
	70	67	67	75	50	50
H	44	67	(33)	75	50	(60)
7	50	100	67	75	50	25
	32	67	100	50	50	25
	34	100	100	50	(60)	50
	37	67	67	40	50	25
K	38	67	67	40	50	25
	40	100	100	50	50	50
7	35	100	33	40	50	50
	31	33	33	0	50	0

In Y/N questions there are four variants isolated (Table 52E, while for Wh-questions there are five variants. In both tables the modal verb as an interrogative operator is acquired earlier than the verb 'be', 'do' or 'did'.

In Table 52E, there are 13 deviations and in 52F, there are 9 deviations. The coefficients of reproducibility are 0.9459 and 0.97 for Y/N and Wh-questions; this shows that the two scales are dependable. While in Wh-questions there is only one subject who has not acquired any of the environments, in Y/N questions there are four such subjects (43, 47, 48, 37). On the other hand, E7 and E10 have categorically acquired all variants. There are some subjects from H10 and K10, and a few from K7 and H7, who have reached this stage, in Y/N questions.

All the implicational scales therefore show not only the order of difficulty of the items (here the inverted Aux. as interrogative operator) but also the way in which subjects from the EM and NEM groups are ordered.

6.8. Summary of the Main Findings in Chapter 6

1. Variation exists between NEM(K) and NEM(H) when compared with EM. NEM(K) and NEM(H) however are not different from each other. The conclusion in that medium of instruction is a differentiating factor in the acquisition of English
2. Variability between the groups is also due to class as a function of time - the longer a learner has been exposed to English, the better he becomes.
   However, the pattern is different between NEM and EM, as can be seen from Figures 16-20. The distinction between classes 4, 7 and 10 is not as great in EM as in NEM, because in EM schools class 4 has already acquired most of the negative and interrogative markers
3. Variability according to tasks is the third source of distinction. In most cases, grammaticality judgement of written sentences, which only require

the respondents to tick a(✓) or (x) at the end of each sentence, is the easiest task for both negation and interrogation. Error correction is average in difficulty, while translation is the most difficult task since it requires the production of a complete sentence. The transformation task which requires the respondent to change an affirmative sentence into an interrogative sentence, is not as easy as expected; the ANOVA results show that it is not significantly different from the translation task. Pearson's correlation for the two tasks is also high

4. In the area of word order in interrogative sentences, most of the NEM subjects have not acquired the inversion rule. Therefore they resort to a strategy of prefixing a question marker before an uninverted declarative sentence
5. In negative sentences the strategy employed is that of inserting a negative variant (don't, etc.) in an affirmative sentence
6. Most respondents scored better in negation than in interrogation; this indicates that interrogation, especially Wh-question, is syntactically more complex than negation
7. The order of acquisition by the respondents in our sample is:

Negation : Be-related variants

1. Is 2. Are 3. Am 4. Was 5. Were

Negation : DO-related variants

1. Did 2. Do 3. Does

Negation : Modals + Neg

1. Can 2. Will 3. Must

Interrogation : Y/N questions : Inverted

1. Modal 2. Do 3. Be 4. Did as Question Marker

Interrogation : Wh-questions : Inverted

1. Will 2. Can 3. Did 4. Be 5. Do

Conclusion

The results in Chapter 6 are similar to those found in Chapter 5: that there are patterns in the performance of the learners defined by class and medium of instruction, which are the main sources of variation in this study. Task differences too create variable performance; this confirms the findings of other researchers and points to the relative differences in accessibility to and control of linguistic knowledge by learners.

CHAPTER 7

Interpretation and Discussion of Results

7.0. Introduction

In this chapter the results of the empirical investigations presented in Chapters 5 and 6 will be discussed and related to the hypotheses stated in Chapter 3. To recapitulate, the sets of hypotheses in Group I relate to the NEM:EM distinction. Differences in quantified performance scores, error-types, types of strategies used, the rate of learning, and the acquisition of form in relation to function, will be discussed within the NEM:EM context. Group II hypotheses deal with the order of acquisition of tense and aspect, and the developmental sequences of negative and interrogative structures. One general hypothesis included in this group is the theoretical discussion on the universal processes of language acquisition. It will be argued that these processes are closely related to the semantics of the intended meaning in communication. Thus, the creative rather than the restructuring hypothesis will be supported. The discussion on the universal processes of language acquisition will be related to the second general hypothesis in Group II, which is the pragmatic-functional-based explanation for the developmental sequences. In the course of the discussions, other related ideas like the functional load of linguistic elements, redundancy in language, and fossilization will be brought up. The last sets of hypotheses in Group III deal with the nature of the IL continuum. It will be argued that variability, both at the vertical and horizontal dimensions, is strictly conditioned by factors like linguistic environments, the nature of the tasks, types of strategies used, and the gradual, continuous process of learning. The hypothesis that the IL continuum is a developmental continuum of increasing complexity with overlapping stages is supported by analyses of the data.

7.1.1. Performance Scores of NEM and EM Groups

Chapters 5 and 6 dealing with the analysis of the data have shown empirically that differences based on quantified performance scores exist between NEM(K) and (H) combined, and EM, but not between the two groups in NEM. (1) Analysis of variance (sections 5.7.2 and 6.5.1) with medium of instruction as the main source of variation shows that NEM and EM groups are significantly different ($p < .01$) for all the areas under study, including word order in interrogative sentences (Tense and Aspect : Table 15; Negation : Tables 39A and B; Interrogation : Tables 40A - E; Word Order : Tables 41A - D). Non-significant difference due to medium of instruction is found only for the grammaticality judgement task in negation (Table 39C). On the basis of all the ANOVA results, H_o1.1 which states that there are no differences between NEM and EM groups is not accepted; an alternative working hypothesis which assumes differences between the NEM and EM groups is accepted.

When each group is isolated to test for significant differences, the Scheffe t' value have shown that, in most cases each NEM group is significantly different from each EM group (Tense and Aspect : Tables 12A - D and Table 16; Negation : Tables 42A and B; Interrogation : Tables 43A - C; Word Order : Tables 44A and B; Interrogation (combined NEM and EM groups) : Table 45A). The exceptions are those of K10 and H10 in progressive aspect (Table 12A) compared to E4, E7, E10 and H10 in perfective aspect, simple past and 3rd singular in Table 12B, C and D compared to E4. In Table 16 it has been shown that NEM(K) and NEM(H) are not significantly different from each other for all the grammatical categories in the investigation. In the syntax of negation (Translation task) all NEM groups are significantly different from the EM groups, with the exception of K10 with E4 (Table 42A). Similarly for Y/N questions (Table 43A Translation test) all NEM groups except H10 are significantly different from the EM groups. However, there is no significant

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(1) Additional support for the non-significant differences between NEM(K) and NEM(H) will be found in the S-Tables in Appendix V.

difference between E4 with K7, H7, K10 or H10 in Wh-question (Table 43B Translation task); nor is H10 different from E7 and E10. The picture is different from word order in Wh-questions (Table 44A) where all NEM groups are significantly different from all EM groups with the exception of H10 with E4. E4 again is not significantly different from H7, H10 and K10 in word order in Y/N questions (Table 44B). Lastly, in Table 45A, all the groups in NEM(K), the groups in NEM(H) and those in EM have been combined again to test for significant differences by the S-methods. The results show significant differences of either NEM(K) or NEM(H) with EM for all the tasks in interrogation. On the other hand, NEM(K) and NEM(H) are significantly different only in the Y/N translation and transformation tasks.

On the basis of the ANOVA results stated above, we conclude that medium of instruction is a significant factor in language acquisition. This is not surprising: in English medium schools there is plenty of exposure to the second language both in and out of the classrooms. The formal and informal learning situations of the EM schools provide for both formal rule-learning in the form of pedagogic grammar, and the inductive, natural internalization of rule through use in actual communication. On the other hand, NEM schools have mainly formal situations with little or no feedback in real communicative use; learners are at the receptive end, passively taking in the 'rules' of the second language and mechanically doing the exercises based on the 'learned' rules. Even when there is a switch to English medium texts and instructions in the higher classes of NEM schools (see section 1.1), the gap [2] between the two groups is still wide. The results support those in the existing literature that traditional classroom teaching alone does not always guarantee success in learning a

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(2) Other psychosocial variables may contribute to the gap, such as socioeconomic level, intellectual ambition, motivation etc. A detailed analysis of such variables is documented in Agnihotri et al (1983).

language. Metalinguistic and pedagogical knowledge, (3) evident in NEM(H) subjects, does not seem to correspond to actual use, especially in spoken communication. Though no conclusive reports can be made regarding formal rule learning, for our NEM sample population it seems as if explicit rule learning alone is an inadequate means of second language acquisition.

7.1.2. Strategies, Processes, Rules and Error-types

The sub-heading in this section is indicative of relationship that holds between strategies, processes, rules and error-types in language acquisition. There is no clear consensus on the differences between strategies and processes. Thus while Selinker (1972) lists transfer, strategies of learning, strategies of communication, as some of the five mental processes, others differentiate between the two terms, e.g. Faerch and Kasper (1983) define strategy as 'the way the learner arrives at a certain usage at a specific point in time' and process as 'the systematic series of steps by which the learner arrives at the same usage over time' (p.125). If this definition is accepted, then the question of processes in a cross-sectional study does not arise. However, as Faerch and Kasper have pointed out, 'strategies may indicate processes of interlanguage formation', therefore strategies should be a field of study if we are to understand the language acquisition process.

Strategies are generally seen to be related to problem-solving in learning or communication. Strategies are used when there are gaps (in lexicon, in syntactic and morphological rules etc.) in the linguistic knowledge of the learners. To overcome this gap, learners have two approaches. The first is to learn by memorizing, by doing classroom exercises, by listening and trying

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(3) From our experience in teaching students coming from EM and NEM institutions, and subjective impression from the data collection sessions in the different schools, it seems as though some NEM students are in fact better than EM students in reciting or defining pedagogical grammar 'rules'.

to understand sentences in discourse, by recourse to grammar books and dictionaries etc. The second approach is to make use of what one has when faced with communicative necessity, or by avoidance, circumlocutions, message adjustment and such other strategies. It has been observed that different learners approach the learning and the communicating tasks differently. However, it may be possible to see group trends which may result from the same type of learning situations and linguistic experiences. Thus, in the NEM:EM distinction, there are some strategies (and resultant error-types) which are common to both groups, but some which are more traceable to the NEM classrooms. We will deal with the former first. One such strategy is the overgeneralization of regular rules, e.g. the use of the regular past tense marker -ed in irregular forms, as in

35. He has teached the children for many years

Another type of 'error' is the overgeneralization of a past tense in the main verbs of negative sentences (hence marking past tense twice) as in

36. I did not walked home yesterday

37. He did not met her yesterday

In negation, the overgeneralization of the unanalysed Neg. operator 'don't is quite evidenced by many respondents, as in

38. Rita don't like rosgulla

In interrogation, the strategy of marking interrogative intention solely by a prosodic feature (i.e. intonation) results in developmental errors of uninverted Y/N questions

39. Danny likes rosgulla?

Since most of the above strategies are therefore those that have been discussed extensively in the literature, we will concentrate on the data from NEM respondents.

In the error analysis in Chapter 5 in tense and aspect there is some indication of the strategy of using a present or past

form of an Aux. to mark tense, (4) e.g.

40. Everyday Ram is run
41. Everyday Ram is eating
42. Last Monday Ram was waking up from sleep
43. Last Monday Ram had listen to radio
44. Last Monday Ram had eat his food
45. Last Monday Ram had going to school

Such data can be accounted for only by referring to the teaching situation. This could result from the drills in the present:past contrasts in auxiliary verbs:

46. He is going : He was going
47. They are going : They were going
48. He has bought : He had bought

It is possible that students are more sure of present and past contrast in Auxs. than in main verbs. Secondly, students who have been taught the perfect aspect without being taught the different functions of simple past or past perfect are confused with regards to the use of the two forms. This comes out clearly in the oral production and multiple-choice tasks in simple past. Some NEM H7 students who have correctly used a simple past form in the oral production, 'hypercorrected' in the multiple-choice test by choosing the past perfect form, possibly because of the presence of the past Aux. had in the past perfect.

Another learning strategy which is to some extent attributable to the structural pattern-practices is the memorization of chunks or whole sentences. Krashen (1982) has observed that 'Audio-lingual pattern practice is based on the use of prefabricated patterns'. Such practices, as has been observed elsewhere, are common in large classes in North-East India in schools which follow the structural syllabus. The strategy of memorization results in the existence of a large proportion of unanalysed prefabricated patterns and routines. These are partly

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(4) Agnihotri et al (1983) have also noted a similar phenomenon in their study.

memorized wholes consisting of sentence frames with an open 'slot' to be filled by a word or phrase or memorized whole patterns or phrases (routines). Lyons (1969) called such construction phrase and sentence schemata and defined them as 'utterances that are grammatically unstructured or only partially structured, but which can yet be combined in sentences according to productive rules' (pp.177-178).

The learning of a language by relying on known or learned formula(s) has been documented by many L1 and L2 researchers. In L1 studies, Braine (1971) and Bowerman (1973) have pointed out that a child's early acquisition is often characterized by piecemeal acquisition and storage of individual or small groups of word formulas like want + x, more + x etc. Bellugi (1965, 1966) theorised that the child's earliest Wh-questions are perhaps best characterized as routines where the prefixed Q-word functions as a question introducer, e.g.

49. Where + ball go? (Wh + NP +V)
50. What + cowboy doing? (Wh + NP +Ving)

Sometimes memorized patterns give a semblance of 'correctness'. This has been observed by Brown and Hanlon (1970:50-51) when the children produced structures like

51. What's that?
52. What are you doing?

even at a stage when they did not understand the structure of Wh-questions. Such constructions have become 'lodged in his speech as an unassimilated fragment' (Brown and Hanlon, loc.cit.)

L2 researchers like Huang and Hatch (1978), Hakuta (1974), Wagner-Gough (1975) and Fillmore (1976) have recorded many examples of the unanalyzed routines and patterns of their subjects. Some, like Hatch and Hakuta, attribute routines and patterns to the increased need to communicate, and the increased ability to store unanalyzed speech because of advanced short-term memory. Because of the gap in linguistic knowledge of the L2, Hakuta suggests that 'the learner will employ a strategy which 'tunes in' on regular, patterned segments of speech, and employs them without knowledge of

their underlying structure ...' (p.288). Fillmore has documented a number of formulas used regularly by her five subjects, such as:

I wanna + VP for declaratives
I don't wanna + VP for negatives

The concept of phrase and sentence schemata as set out by Lyons, and the existence of routines and patterns justifies an analysis of some negative and interrogative sentences as combinations of unstructured or partially structured chunks underlined below.

53. Yesterday a book is a not in a bag
54. I am a not eat rices now
55. He is not can come to here
56. When I am come then he is eating
57. He is not go my friend therefore I am go alone
58. Why I am can't go with you?
59. When you can come go Gauhati?

In most of the above sentences, the common patterns are:

(a) NP_1 (Pron.) + Be + (V+ing)
(b) NP_1 + Be + (a) (5)
(c) Modal + V

For the syntax of negation and interrogation, there is a strategy of inserting in the declarative affirmative sentence a negator or prefixing a question marker. For marking negative intention, a negator - no, not, don't, did not - is inserted in the declarative sentence, e.g.

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(5) The use of NP_1 + Be as a unit can be seen in the data of Nielson (1974)
Stage 3 : I'm not like a snake (don't)
I'm not want it (don't)
Mommy is not have icecream (doesn't)
and Al-Jumaily (1982)
p. 197 I am no want (don't) The pupil is no swim (didn't)
I am not take (won't)
My friends are don't go to the zoo yesterday
Both researchers drew their data from Arabic speakers. Al-Jumaily attributes such forms to transfer of training 'because teachers in Iraq usually stress the necessity of having helping verbs for negation and interrogation'.

60. I will did not study
61. Children are did not reading this time
62. The boy is did not falling down
63. When I left the house he was did not sleeping
64. He is not can come to here
65. She Ram is don want to go
66. They are not rong it (They didn't do anything wrong)
67. Tomorrow he will don't come

Though the possibility of such a strategy has not been discussed much in the literature, it may be a plausible explanation to account for such sentences as the above. Data from interrogative sentences lend support to the strategy of slot-insertion. To mark Y/N questions, the Auxs. Do, Does, Did, Is etc. are prefixed to the affirmative sentence.

68. Do you can reserve place for me?
69. Do you keep a place for me?
70. Do you are fool?
71. Do the boy go to home?
72. Does he is still sleeping when you reach there?
73. Does the children are reading book now?
74. Does Tom's house is far from here?
75. Did you will keep some place for me?
76. Did he is not the class captain?
77. Did he didn't go now?
78. Did Rita is living in that house? (H10 S71)
79. Is your friends are here with you? (H10 S71)

The same strategy has been followed in Wh-questions:

80. Where do you can take the book?
81. When does you can go to Gauhati?
82. Why does he didn't go?
83. Why did he was waiting for me after school time?
84. Why did he has not done his homework?

85. Why did you will shout?
86. Why did I cannot go with you?
87. When will he can come?
88. Why are you cannot reading now?
89. When are you can going Gauhati?

The sample data above is taken from various classes in the NEM schools (although almost all the data above is taken from the translation task, such examples are also seen in the transformation task). Since such data is prolific, there is every indication that slot-filling of a Neg. or Q marker is a regular strategy used by the NEM groups studied, in all three classes. Different Neg. or Q markers have been used by the subjects, but we cannot conclusively say why some learners prefer one over the other. We cannot also account for variable choices of two or more forms by a student, e.g. H10 S71 in sentences 78 and 79 above since we did not find such structures in the EM groups; it is tempting to hypothesize that the learning situations in NEM schools encourage the strategies of slot-filling. However, Wode (1978), investigating the L2 acquisition of Heiko and Lars, reports similar structures: (5b)

90. Do it is good?
91. Do the crickets can fly?
92. What do you was doing? (Wode, 1978:48-49)

Hakuta's Uguisu also has similar forms:

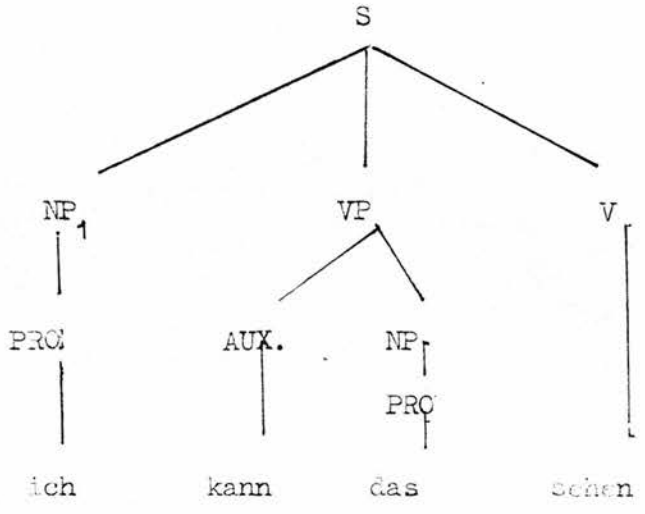
93. What do you doing, boy?

It may therefore be fruitful to also examine the above negative and interrogative sentences in the light of what has been discussed by Felix (1978) and Labov and Labov (1978).

In positing the strategy of 'linear expansion of complexity', Felix has isolated three stages:

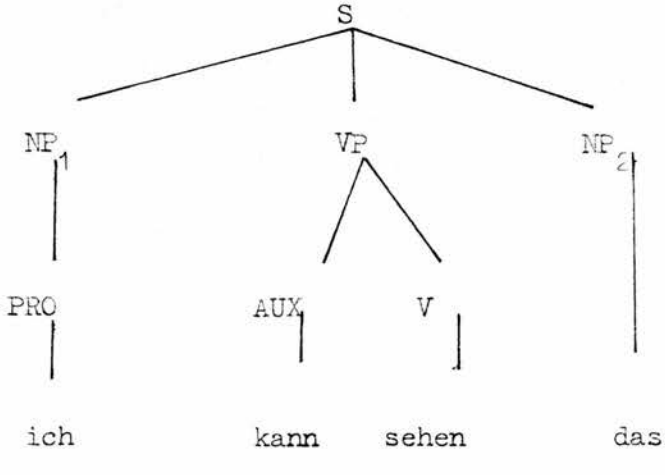
(5b) Ervin-Tripp (1974) in her Notes cites from the data of Shira Milgrom, who found sentence-initial Q morphemes in Hebrew children, e.g.
Is I am going to be a rich man?
Do you can tell me what is the time?

STAGE 1. Derivation from surface structures of sentences like



which is the result of the addition of a new element to a known structure S + Aux. + X 'ich kann das'. According to Felix, linear expansion is a grammatical strategy and is motivated by the surface word order of the adult language.

STAGE 2. Internal structural rearrangement - determining the status of the verb 'sehen'. The loosely attached verb is now integrated into the structure of the remaining sentence by placing V under the dominance of VP next to the Aux.



STAGE 3. Permutation of V and NP_2 to realise

ich kann das sehen

I can that see

What we are interested in Felix's observation is Stage 1, where an L2 sentence is derived from surface structures and the addition of an element to a known structure. We have seen that this is done regularly in negative and interrogative sentences by our respondents, e.g. to known declarative sentences like

94. I will study

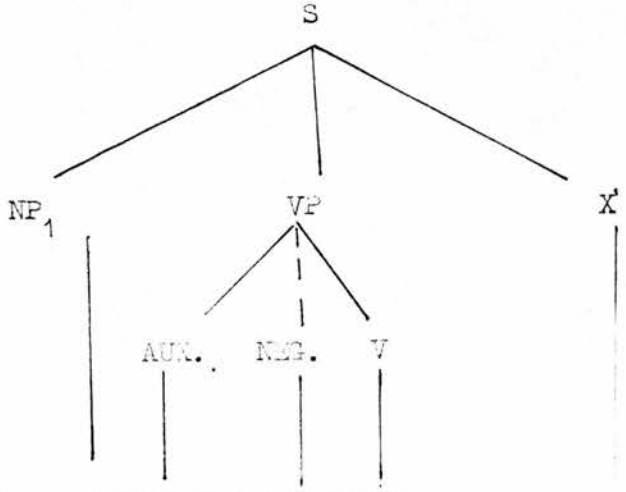
95. Children are reading this time

negators like 'did not' have been added within the sentences to realise 60 and 61 above. Also for affirmative sentences like

96. Rita is living in that house

97. Your friends are here with you

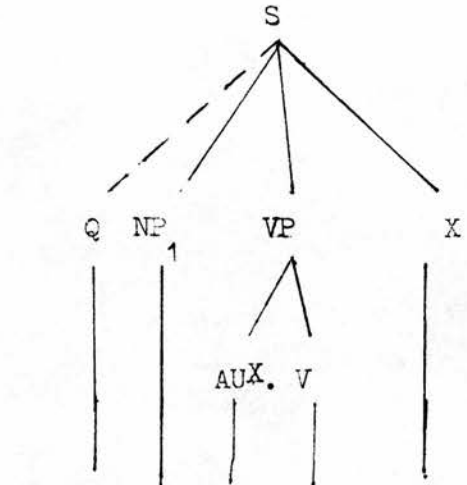
interrogative markers 'Did', 'Is' have been added to form Y/N questions 78 and 79above. This is also true for Wh-questions in sentences 80 and 89 above. Linear expansion of complexity appears to be an ad-hoc, low level and primitive way of arriving at the intended meaning (negating or interrogating in our data). The operation is only at the surface structures since transformation rules have not been acquired. For sentences



60. I will did not study

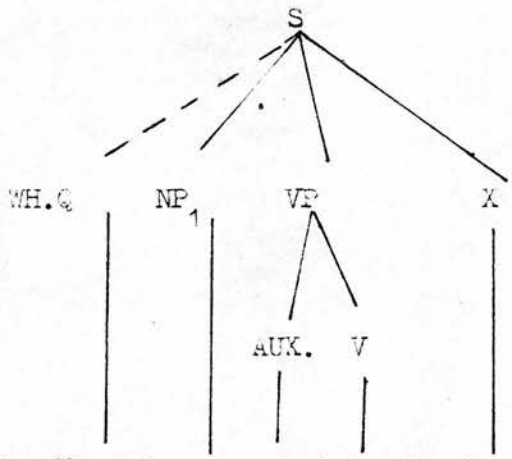
61. Children are did not reading this time

67. He will don't come (tomorrow)



68. Do you can reserve place for me

79. Is your friends are here with you



80. When do you can take the book

81. When does you can go to Gauhati

This kind of phenomenon has also been observed in an L1 acquisition study. Labov and Labov (1978) have posited that the early acquisition of Wh-questions by their child Jessie involves only phrase structure (PS) rules. In other words, the formation of a Wh-question is a strategy of loosely attaching a Q work or particle to a sentence. The PS rules posited for Jessie are

S1) Q ⟶ How + V + NP (VP)
S2) Q ⟶ Where(s) + NP
S3) Q ⟶ What(s) + NP
S4) Q ⟶ Why + NP (S)

to realise interrogative sentences (6) like

98. How it goes?
99. Where the boy/Daddy?
100. What that means
101. Why water on these?
102. Why you pick macaroni?

Labov and Labov have observed that 'syntactic reorganization' (p.31) from simple PS rules to underlying T-rules occur in the later stages of acquisition. This involves the reanalysis of inverted sentences like

103. What do you do?

as a product of a PS rule

S ⟶ NP + Aux. + VP
Philadelphia is Wh-Loc. NP
Philadelphia is where

and transformation rules

T1 ⟶ Where Philadelphia is?
T2 ⟶ Where is Philadelphia?

Following Labov and Labov, the following (PS) rules are posited for the production of negative sentences by NEM learners

---

(6) Sentences 98-103 are taken from Labov and Labov (1978).

R.1. NP_1 + Be + { No / Not / Don't / Did not / Never } + X

to account for sentences like

104. She Sita is not tea
(Sita doesn't want tea)

105. He Ram is a not want go
(Ram doesn't want to go)

106. You are not going to Gauhati

107. He is did not go to the house

108. I am don't ask the Principal

109 I am book did not carry
(I did not carry the book)

110. When I am come then he is not eating

111. I am not come now

112. He is not school
(He will not go to school)

113. He is not never like rosgulla
(He doesn't like rosgulla)

114. He is never like rosgulla

115. He is not house
(He will not go home)

116. Yesterday my is not going
(Yesterday I could not come)

R.2. NP_1 + Modal + { No / Not / Don't / Did not / Never } + X

117. I will did not study

118. Tomorrow he will don't come

119. I will no study

120. I will never walk alone
(I won't walk alone)

For Y/N questions, the following PS rule is posited:

R.3. Q → { Do / Did / Does / Is / Are } + S

Examples of Y/N sentences produced by such a rule are

121. Do you can reserve a place for me?

122. Did the boy has gone to his house?
(Has the boy gone to his house?)

123. Does the children are reading book now?

124. Is you are going now?

R.3 accounts for most of the data in Y/N questions in NEM groups since such sentences abound. Similarly for Wh-questions the following PS rules can be posited:

R.4. Wh-Q → { Wh do / Wh did / Wh does } + S

125. When did you will go to Gauhati?

126. Why don't you can wait for me?

127. Why dod you cannot go with Ram?

128. Why does you don't read book?

129. When did you have written the book?

While sentences produced by the above rule are numerous, a few examples only produced by the rule below:

R.5. Wh was + S

130. Where was the boy felled down last week?

131. Why was he bought the book?

The above analysis based on Labov and Labov (op.cit.) is more acceptable than that of Felix (1978) who analysed sentences like

132. Are you know what that is?

133. Are you stay here?

134. Is you come here?

135. Is you go to school?

as the insertion of a dummy Aux., creating a structure Aux + V to which the inversion rule is now applicable. Felix's argument (p.106) is that the learners concerned have acquired both Auxs. and the interrogative inversion transformation earlier than the main verbs. This argument does not hold because most other studies in acquisition (L1, L2 etc.) have shown that the acquisition of Auxs. and the inversion rule are always after the acquisition of the main verb. The 'dummy' Aux. is really a question marker prefixed to the affirmative sentence in a very loose manner. This proposition is tenable if we relate such sentences to strategies of communication, i.e. if we posit that Q + S is a problem-solving strategy to overcome the inadequacy of not having syntactic rules (i.e. inversion) in situations when interrogative intention has to be communicated.

Givón (1979) has discussed the characteristics and uses of the pragmatic and syntactic modes in relation to different linguistic systems (pidgins, child language, registers etc.). One characteristic which differentiates the two modes is the loose conjunction and parataxis of sentence structuring in the pragmatic mode. The syntactic mode, on the other hand, is tightly structured, as in subordination and embedding of clauses. Givon has also observed that language acquirers first acquire a communicative system which "exhibits the characteristics of our pragmatic mode" (p.226). Thus, in the light of these observations, it is feasible to posit that loosely conjoined structures like

$$NP_1 + \left\langle \begin{matrix} \text{Modal} \\ \text{Be} \\ \text{Copula} \end{matrix} \right\rangle + \text{Neg.} + X$$

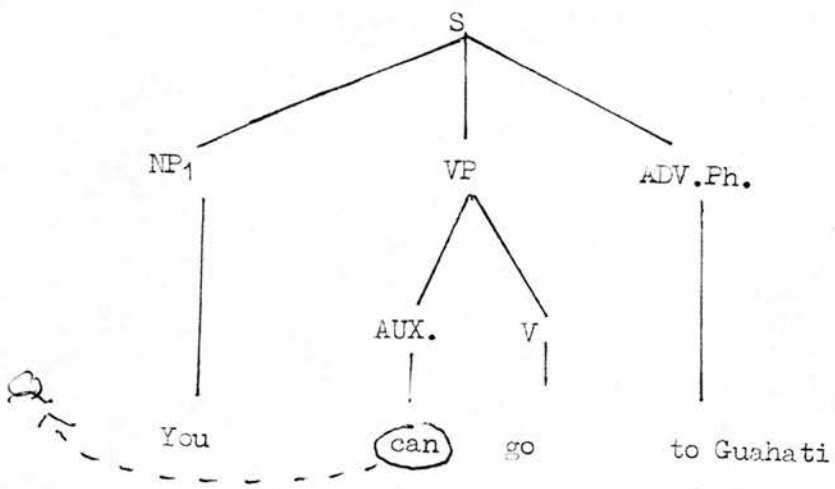
$$(\text{Wh})Q + S$$

where Neg ⟶ No, Not, Don't, Did not, Never

Q ⟶ Do, Did, Does, Is, Are

Wh - do, Wh - did, Wh - does, Wh - was

are indicative of the pragmatic mode of communication. These structures which make use of simple insertion and addition to a known structure are possibly easier than structures which involve syntactic rules like inversion and movement across constituents, schematically represented in the T.G. grammar as



It has been observed earlier (p.254-256) that a particular learner makes use of one or many of the Neg. and Q. operators given in rules 2-5 (pp.261-262) according to his repertoire of such operators. The overgeneralized use of Do as question marker, for example, shows that the learner is making the form Do do duty in inappropriate contexts, but with a clear intention to mark interrogation. Felix (1976) has called such a phenomenon as the strategy of semantic over-extension; i.e. the use of a certain interrogative morpheme with a different and/or wider semantic range. He explains Guy's overgeneralized use of warum (why) and Julie's use of wo (where) as a strategy to overcome the mismatch between the learner's communicative intentions and his insufficient linguistic knowledge of the appropriate L2 question operators. In Felix's view, "this phenomenon seems to be L2 specific".

A strategy of learning with reference to taught rules (but not fully grasped) is the strategy of hypercorrection. Sentences 130 and 131 (p.262) are indicative of this kind of strategy. Similarly, the treble past tense marking in a sentence like:

136. Where did the boy was felled last week?

suggests the learner's concern to 'make sure' that past tense should be marked. However, since he was probably uncertain about the application of past tense rule in such a sentence, he adopted the above strategy. This type of strategy too is more likely to arise in the formal context of a classroom where pedagogical grammar has a major part. Such strategies and such errors are expected, because in most cases teachers emphasize the use of certain rules, but do not teach restrictions on their use.

Some of the communication strategies discussed by Corder (1978) and Tarone (1977), such as appeal to authority, message adjustment and resource expansion strategies can be exemplified from the oral picture-description task, e.g. H4 S13 when at a loss to get the right verb, asked for assistance in Hindi. (7) It was observed that in the lowest NEM groups (K4 and H4) the respondents abandon the full sentence after about a couple of pictures, in favour of a single verb, possibly because the full sentence makes too much of a demand under the pressure of time and memory limitation, e.g.

137. Everyday Ram wash his teeth
138. Everyday Ram wash his face
139. Everyday Ram drink
140. Everyday Ram reading

When a verb is not readily available, the message was communicated by using a noun, e.g.

141. Everyday Ram door
142. Everyday Ram radio

Sometimes a 'neutral' or dummy verb such as do, did is used when the correct verb was not retrieved quickly enough, e.g.

143. Last Monday Ram waked up
144. Last Monday Ram did his brush
145. Last Monday Ram washed his face
146. Last Monday Ram did his breakfast
147. Last Monday Ram do skipping

---

(7) No definite assistance was given, but only an encouraging 'hmm..' so that the learner's problem solving is ultimately his own.

Message correction takes the form of monitoring, e.g.

148. Last Monday Don is writing was writing letter

149. Last Monday he brush he brush he's brushing his teeth

150. Last Monday Don is was taking his breakfast

151. Last Monday Don is opening door Oh Don was opening the door

152. Last Monday Don sleep Oh slept

153. Last Monday Don eat eaten had eaten channa

154. Everyday he goes he go from eh from bus

As can be seen from the above examples, some monitoring was not successful (149, 154) but it is possible that the respondent, intent on communicating a series of messages, thought that he had successfully monitored and went on to other sentences.

7.1.3. The Acquisition of Form and Function by EM and NEM groups

Another type of mismatch common in L2 acquisition is that between form and function. Hatch (1978) has rightly observed that since our focus of interest is on the process of language acquisition, we should direct our attention to function as well as form to fully understand that process. Wagner-Gough's (1975) study of Homer's acquisition of English is an example of functional analysis where the analysis is in terms of the function the progressive performed in Homer's speech, and not judged for appropriateness in form or function. Gough's (p. 160) conclusion is that "syntactically, Homer's progressive developed in a manner similar to that of other children in L1 and L2 studies. Semantically, however, it was not a predictable marker of tense and aspect "because Homer overextended its use to four temporal references (including past) and as an imperative. On the other hand, Homer's speech also show a semantic free variation between going, go, I'm go, I going, I go with the same meaning, i.e. movement from one place to another. In both cases form and function are not in a one to one relationship.

The same kind of forms are seen in our data Moreover, we have seen strong indications of the use of the progressive for simple present or simple past in the PD task (Figures 8 and 11). We have discussed that the non-emergence of the 3rd singular is due to its substitution by the present progressive. In other words, most learners in NEM have acquired the form of the progressive, but not the function or the restriction on its use: in contexts which require the habitual 3rd singular simple present, the learners use a form denoting on-going action. The same can be seen in the use of the past progressive, for simple past. The reasons are not far to seek. Firstly, the progressive -ing is easier to perceive than the morpheme -s. Secondly, the distinction in functions between the 3rd singular or simple past and the progressive has not been grasped. Thirdly, we have discussed earlier that tense is marked more by Auxs. than by the main verb inflections. Thus is walking contrasts sharply with was walking, but not, for our NEM subjects, walks vs walked. Here again we see that the discrepancy between form and function could either be again the drilling of Be aux, or the influence of the mother tongue for Khasi speakers. Lastly, the overgeneralization of the use of the progressive can also be due to the influence of the Indian variety of English. This last argument however is circular, because one can argue that fozzilization at a particular stage and the non-differentiation between a simple tense category and an aspectual + tense one by a large majority in fact produces Indian English. This would imply that most Indian learners of English do not go down the implicational scales (Traugott, 1977) in section 5.5 and that fossilization has set in at the progressive aspect. This phenomenon is also recorded by Platt (1977) in his study of Singapore English. Platt found that only those with EM education have categorical use of the copula and the past tense in all the linguistic environments that he has isolated; all other learners seem to have fossilized at a certain stage.

The non-acquisition of forms in relation to function has also been reported by Agnihotri et al (1983). In their study of the acquisition of the English tense and aspect system by college

students of Delhi University, the investigators found that most of the respondents overgeneralize the use of one grammatical form to contexts which would require another. As evident in the present study, there is a great deal of misunderstanding about the functions of the various tense/aspect categories. Agnihotri et al have also showed that private schools (EM) subjects are the only ones who have control of form in relation to its function.

In the previous section, it has been shown that the strategy of semantic overextension of Auxs. like Do, Did, Does etc. in interrogative sentences is quite productive among NEM subjects. This could be due to the lack of the syntactic inversion rule. It could also be due to some kind of misanalysis, i.e. learners believe that Do etc. are markers of questions. The grammatical function of Do as a tense carrier has also not been grasped, since Do, Did, Does etc. are indiscriminately used without reference to tense, as in

155. Did you are going home?

Similarly, in negative sentences don't, did not are misanalysed as negators rather than as Aux. (+ Past) + not (n't)

156. I am did not eating now

7.1.4. The Influence of Task Differences in the NEM : EM groups

In section 5.6.2 of Chapter 5, we have compared the performances of the 9 sub-groups in three different tasks in 3rd singular and simple past. The means of performance scores and the graphs in Figures 8 - 15 indicate a fairly constant range for the EM groups, but high variability for the NEM groups. For example, in Tasks 1, 2 and 3 in 3rd singular, the range of means between E4 to E10 is from 60 to 100. On the hand, the range widens for NEM(K) from 0 (K4, Task 1) to 77 (K10, Task 3). Similarly, the range between H4 and H10 stretches from 0.5 (H4, Task 1) to 98.5 (H10, Task 3). This is because of the great improvement of the intermediate and advanced NEM groups from Task 1 to Task 3. For example, in Table 20A, K10 jumps from 8.0 to 37.4 to 77.0 across the three tasks. Again, H7 shows great variability in the means ranging from 16.5 in Task 1, 17.9 in Task 2, and a high 81.5 in Task 3. The same kind of

interpretation can be made about variable performances in the three tasks in the simple past by K7, K10, H7. These can be seen in the graphs (Figures 8 - 15) since the lines representing the NEM groups stretch over a wider span in Tasks 2 and 3 when compared to that line for Task 1.

Means of performance scores in Table 36 (section 6.3) again show variable performances by NEM groups in the three tasks in negation. This is clearly seen in the wide range of differences in the K4 group: means at 1.0 in the error correction task, 24.18 in the translation task, and 37.25 in the grammaticality judgement task. Similarly, H4 jumps from 0.0 in the error correction task, to 34.75 in the grammaticality judgement task. The same trend is seen in H7, K7 and H10 however are more stable, therefore comparable to the EM groups. The pattern is again repeated in the syntax of Wh-interrogation (Table 37), but not Y/N questions or word order in interrogation (Table 38). In the last two areas, even NEM groups show fairly constant performances across tasks. However, the bulk of the data support the view that differences in tasks influence markedly variable performances in NEM groups. It would seem therefore that the IL systems of these groups are less stable because they are permeable to the level of difficulty of different tasks. In other words, for the NEM groups, performance scores are conditioned by factors like time, access and reference to learned rules, monitoring by rule or by feel, the nature of the task, (i.e. production or recognition) and other such factors. In contrast, EM groups show greater stability across tasks because they have more or less categorically acquired the tense and aspect system, and the syntactic rules for negation and interrogation.

7.1.5 Interim Summary

Quantified performance scores on all areas studied show significant differences between the two NEM groups representing two different languages. Analyses of sentences in the data show some strategies which are common to both NEM and EM groups, and some which are probably more related to the learning situation of NEM schools (e.g. memorization, stringing together unanalysed chunks etc.) though routines and patterns may be present in the IL of EM groups,

these are not so apparent because even at class 4, EM learners reveal a developed analytic ability. This is possibly because of the more 'natural' learning situation in EM schools which allows for the cognitive-based language acquisition mechanisms to be activated. In other words, learning a language in context, and using it in communication as one learns, make EM learners rely on the creative construction process for internalising TL rules. It is possible that self-discovered and naturally acquired rules are more 'stable' across different tasks. It is also possible that in natural acquisition in context, it is easier to relate form to function, thus showing a quicker mapping between form and function. This is not the case if one is being taught in the abstract, from grammar books and in pattern-practices. Drills and patterns encourage meaningless memorization of chunks. A production strategy which arises from memorized material is the conjoining of unanalysed or partially analysed chunks in a sentence. (8) This includes the conjunction or insertion of a Neg. or Q operator to mark negative or interrogative intention respectively. It is to be noted that the production strategies discussed, such as the linear expansion of complexity and semantic overextension, emphasize the learners' general strategy to operate on whatever L2 linguistic material is in his possession at a specific point in time. The data indicates that the learners in this study are aware of the language distance between the L1 (Hindi and Khasi) and the L2 (English) at a relatively early stage. Hence sentences like

157. * She not is girl good

158. * When I came then he not eating was

159. * He is house going no

which are based on the L1 (Khasi, Hindi and Bengali respectively) are not found in our data, except for one Bengali student from a total of 128 learners. The strategy of L1 transfer plays a very little part in the present data, e.g. the redundant He and a in the following sentence

160. He Ram is a not want go

---

(8) An extreme case of unanalysed chunks strung together in a 'sentence' is one written by a postgraduate student in North-East India
Credit is due/for the consistency of thought/in tracing/the evolution of the religion/against the logical background.

Learners therefore adapt strategies which are more L2 (or IL) based. To a learner, the sentence above is more acceptable because it 'sounds' English, whereas the three starred sentences do not.

7.2. Developmental Sequences and Universal Processes

7.2.1. The Universality of Language Acquisition Processes

The hypothesis that the cognitive mechanisms for linguistic processing are universal and innate have been recognised by most writers in SLA. Corder (1967) is of the opinion that these internal mechanisms enable a learner to construct the grammar of the language he is learning. Dulay and Burt have referred to the 'creative construction process' again and again in their writing, and have shown empirical evidence for the universality of such a process. Wode (1981) have referred to the mental processes as 'linguo-cognitive mechanisms' since they are probably a sub-class of the general cognitive abilities of man specific to linguistic processing. Traugott (1977) also points out the possibility of a universal semantax: the cognitive processes of production, specifically those involving expression of semantic and semantically related syntactic processes. We note here that these universal and "natural semantactic processes" have been discussed by Bickerton (1974) and Slobin (1975) to account for the recurrent types of semantic-syntactic processes in disparate contexts, and the dynamic nature of the competence of language users. A set of such semantactic processes are Slobin's (1973) principles: (i) underlying semantic categories should be marked overtly and clearly, (ii) avoid exceptions, (iii) avoid discontinuity, (iv) pay attention to ends of words and (v) pay attention to word order.

We will attempt to support the view that universal acquisitional processes guide basic sentence construction from the data on negation and Wh-interrogation. The principle of Slobin regarding word order (v - above) will form the basis of the following analysis. Secondly, we will provide examples which show that semantic considerations guide the construction of L2 sentences. In the examples, we will see that learners do negate the intended element - nominal, verb, locative or adjective - no matter what the

position of that element is in the L1.

Data is taken first from the K4 group, since they are the beginners group not much influenced by teaching. This group translated from simpler sentences which are mainly copular sentences divided into Pre-Nominal, Pre-locative and Pre-adjective copula + Neg.

The negative pattern in Khasi is a Pronoun + Neg. + Be and the Neg. element -m is always suffixed to the pronoun, and always followed by a Cop. (long or dei) or the aux have (don) in locative adverbs.

Pre-nominal

161. a. Last year he is not a teacher
b. minshem snem um dei u nonhikai
c. (Last year he not is a teacher)

162. a. Last year is a not a captain
b. minshem snem um long u captain
c. (Last year he not is he captain)

Pre-locative

163. a. The book is a not the table yesterday
b. Ka kot kam don ha kd miyij minhinnin
c. (She book she not is on she table yesterday

164. a. Last year the fruit is a not basket
b. minshem snem ki so? kim don ha ka shang
c. (Last year they fruit they not are in she basket

Pre-adjective

165. a. Last year is a not a clever boy
b. minshem snem um dei u khinna? u ba stad
c. (Last year he not is he boy he who clever

166. a. She is not good man
b. kam dei ka khinna? kaba bha
c. (She not is she girl she who good)

In the above sentences, we see that the copular verbs in the translated sentences 161-166a are in a pre-Neg. position, not in the past-neg. positions (161c-166c). Secondly, as stated earlier, the nominal, locative and adjective in the predicate is always negated in the translated L2 production. If relexification or restructuring had taken place, i.e. if the L1 had been the basis of the production of English negative sentences, then the results would have been similar to 161c-166c above.

The data above show that learners are guided by the meaning in negating the nominal, verbal, adverb or adjective. Note especially the translation of Pre-Adj. sentences: in Khasi the adjective comes after the noun it qualifies, and it is separated from the negator by a number of other words in between. Yet in the L2 translations we see these changes:

(i) the negator is placed immediately before the adjective

(ii) the adjective comes before the noun

(iii) the aux is are, if used, comes before the negator

Similarly, for Hindi negative sentences containing a MV and an Aux., there are some differences with the English structures, e.g.

English :	Aux.	+	Neg.	+	MV	+	Prog.
	is		not		reading		
Hindi :	Neg.	+	MV	+	Prog.	+	Aux.
	nahi		par		reha		hai
	not		read		ing		is

Yet the production of negative sentences by Hindi speakers is guided by the syntax of English:

167. a. When I am come then he is not eating
b. jab mai aya tab voh nahi kha raha tha
c. when I came then he not eating was

168. a. When I left he was did not sleeping
b. jab mai aya tab voh nahi kha raha tha
c. when I came then he not eating was

When we compare the positions of the Neg. element and the Aux. in 167a:167c, 168a:168c we notice that the students have not followed the syntax of the L1 since in both sample cases the Neg. element is between the Aux and the MV which is the regular English structure of negative sentences.

The third source of data is taken from Bengali students. As discussed in 3.8, Bengali has post-verbal negation with the neg. particle occurring in sentence final position, yet only one student B4 S9 out of 38 have sentence final negation.

169. Post-Nom. Sita is pupil no
(Sita is not a student)
170. Post-Verb. He is house going no
(He is not going to the house)
171. Post-Verb. He is to Delhi get no
(He has not been to Delhi)
172. Post-Adv. They are talk loudly no
(They should not talk loudly)

Most of the negative sentences of the Bengali students follow the same patterns as those for Hindi and Khasi students, as is evident from a comparison of the following sentences with the sentences above. The Bengali students produce negative sentences like:

173. He is a not teacher
174. He is not never like rosgulla
(He doesn't like rosgulla)
175. He is not house
(He will not go home)
176. Yesterday my was not going school
(Yesterday I did not go to school)

The next source of data is taken from the translated Wh-questions of Khasi students. As discussed in 3.3.3.2, information

question words in Khasi can either be sentence initial or sentence final (K21-K26 in p.87-88) since both positions are normally accepted and occur in everyday speech. Yet none of the Khasi students in our sample produce sentence final Wh-question word of the type:

177. He is going <u>where</u>?
(un leit shano?)

All the Wh-interrogative sentences of Khasi students have Wh-initial positions, as

178. Why he is a good boy?
Where he is going?

Hindi, as discussed in section 3.3.2.2. may have sentence initial or sentence medial Wh-element. Yet no Hindi learner produces Wh- internal questions like:

179. Raja when come will?
(raja kab aega?)

The data above indicates that the influence of the L1 in construction syntax in the L2 is minimal. In other words, the syntax of an L2 is acquired in its own terms and not those of the L1 since word order of the L2 guides the acquisition of the L2. If restructuring or relexification had taken place, then the placement of the neg. element in English should have been 'not is' in the K4 negation data, 'not reading is' in the Hindi negation data, and sentence final, post-verbal/nominal/adverbial/adjectival in the Bengali students' data in negation. In Wh-questions, Khasi students should have produced both sentence initial and sentence final Wh-question words and Hindi students would show some sentence internal Wh-questions. Secondly, structures like Neg. + X and other elementary structures would never have occurred.

The other point to note in the data on negation is that the negators used are the 'universal' negators of a particular language in the early stages - <u>no</u>, <u>not</u>, <u>don't</u> - which are placed before the negated verb, adjective etc. These interact with the elements produced by teaching, such as the misanalyzed and usually

redundant Be after the pronouns in the following sentences:

180. I (am) (a) not eat rices now (I not ...)

181. He (is) not can come (to) here (He not ...)

182. I (am) don't want to go (I don't ...)

The reconstructed sentences in brackets identify the stages of development of these learners which are comparable to those reported in the literature for learners who 'naturally' acquire the L2. The same can be said about interrogative sentences:

183. (Do) his house is far from here?

184. Why (did) he is not sitting in the class?

In both sentences, if we take away the bracketted do and did, we would have uninverted questions commonly reported in the literature as those belonging to definite stages of development.

The data seems to indicate that the "built-in syllabus" (Corder, 1967) which is based on universal cognitive processes overrides the influence of teaching for syntactic processing.

As mentioned above, 'stages' of acquisition can be identified for the above sentences. Taught (but not probably analyzed or internalized correctly) elements only complicate the identification of the universal stages. Felix (1980) has observed the same phenomenon in classroom learning. Felix cites examples which argue strongly for the "built-in syllabus" hypothesis, such as

Doesn't she eat apples

which is equivalent to "no she eat apples" (i.e. she doesn't eat apples) in the Neg. X stage. According to Felix, such a sentence results from the introduction of doesn't before the learners have passed the Neg. X stage. If such a view is correct, then it is also possible that the introduction of did not before learners have analyzed the function of do results in the wrong conception that did not is a negator, as in

185. I am (did) not going home

186. I am (did) not meeting her

Similarly, the did before learners have naturally acquired do as an Aux. results in the misanalysis that these are question introducers in sentences 183 and 184 above. The attempt to teach interrogative sentences before learners could invert also produce the interrogative sentences mentioned in the previous section.

The above observations reiterate the view that syntactic processing is more likely to be guided by the universal processes of acquisition. The data also confirms Corder's (1971:27) observation that "the learner is pre-programmed to process the input in a particular way ... some data is presented prematurely so that it cannot form part of the intake".

7.2.2. Sequence of Development

It is the belief that universal linguo-cognitive mechanisms are responsible for linguistic/syntactic processing that has prompted researchers in language acquisition to find sequences of development in learners. The hypothesis (Corder, 1967, Dulay and Burt, 1974 etc.) is that, if there are universals of linguistic acquisition, then the sequences should be similar across variables like the learners' Lls, age, learning situations etc. The accepted procedures for tracing developmental sequences are longitudinal and cross-sectional studies, though both methods however have their own peculiar strengths and weaknesses. Since this study investigates group trends rather than individuals, the cross-sectional method has been adopted.

In the following sub-sections we will present the orders of acquisition (9) of tense and aspect, and the sequences of development for negative and interrogative structures.

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(9) Felix's (1981) definitions of the two terms have been followed.

7.2.1.A.Order of Acquisition : Tense and Aspect

The results of the implicational analysis of tense and aspect in Chapter 5 have established the sequence acquired in this order.

1. Present Progressive
2. Past Progressive
3. Simple Past
4. Past Perfect
5. Present Perfect
6. 3rd Singular

The order is similar to the acquisition hierarchy of morphemes, based on Dulay and Burt (1975) and Krashen (1981:59), since the progressive -ing is one of the earliest to appear. The irregular past appears in Group III in both lists, while the regular past is listed in Group IV in Krashen's order (no mention of the regular past is made by Dulay and Burt). The 3rd Singular appears in Group III in Dulay and Burt's, and in Group IV in Krashen's orders. Lastly, the perfective have and -en is listed last (Group IV) in Dulay and Burt's hierarchy. In Agnihotri et al (1983) the present and past progressive, and the simple past, are acquired at Stage 1, while the present and past perfective are acquired later. Similar results have been obtained by Okanlawon (1984), though no direct comparison can be made because the grammatical categories have been divided into non-past and past. However, our results vary considerably from Simukoko (1981:172) since in his results the perfective appears before the progressive (past and present). What is comparable is the appearance of the past before the present perfect in 2 groups out of 3. None of these three studies however treat the 3rd Singular separately, hence no comparison can be made for that sub-category of the simple present.

7.2.2.B.Sequence of Development : Negation

In tracing the sequence of development for negation and interrogation, we have to keep the following points in mind: firstly, the stages are not linear, discrete stages, but they

overlap within each subject's variable performance, e.g. uses both internal and external no, which is in free variation with not. The same subject is capable of placing is or are in some copular sentences. Secondly, since our data is taken at two years interval, it is very likely that some stages have been missed. The overall data from NEM however shows that the 'stages' isolated are fairly consistent with those found in other studies. Thirdly, since our data is cross-sectional, we will look for the broad sequences of development by fitting our data in comparative tables with those of longitudinal studies (L1 and L2). Fourthly, data for the sequence is drawn mainly from the NEM groups since EM groups have more or less reached TL norm. Lastly, the influence of teaching, i.e. the early introduction of do tends to confound the results. For example, it is not always clear whether do, does, did are correctly used in obligatory contexts or used as general Q. markers in whatever contexts. Similarly, we could not always ascertain whether do not, and did not are used as analysed elements in appropriate contexts, or as general unanalysed negators favoured by some learners.

TABLE 53A. STAGES OF DEVELOPMENT:NEGATION

L1 English Klima & Bellugi 1966	L1 Norwegian Ravem 1969	L1 Japanese Milon 1974	L1 Hindi/Khasi/ Bengali
Stage 1 No+X sentence-external no			
no heavy		no more	no I am study (K4S1)
no singing		not cold	no I will school (K4S1)
Stage 2 NP_1 + no / not +V sentence-internal no/not			
I no taste them	no,I not come now	I not give you a candy	I no eat rise (K4S3)
He no bite you	I not like that	You no can go	He not eat(H4S15)
I not hurt him	I will not more	I no like pig	I not go school (H4S11)
Stage 3 NP_1 + don't / can't +V sentence-internal don't/can't			
I don't want it	I don't know	You letter don't pay	He don't go school
This can't stick	I don't like it	You no go swim	Yesterday you don't go school
	We no don't walk		Yesterday you dwon go to school
			They tomorrow don't come
			Children this time don't eat
Stage 4.a.NP_1+Cop+Neg.Correct negation in Copular sentences			
			They are not good piple
			He is not captain football
			Today is not a good boy
Stage 4.b.NP_1+Mod+Neg. Correct negation in modal sentences			
			I will not study
			She can a not go
			I will a not a go to school
			They won't go
			I cannot keep place for you
Stage 4.c.NP_1 + didn't / did not Sentence internal didn't/did not			
			Rita did not live in this house(H7S41)

The above table shows a broad division of the

The above table shows a broad division of the stages of development fitted into the stages of acquisition in other studies. Stage 4 however is posited for our subjects because this shows an advancement in the acquisition process when subjects correctly use the patterns.

Stage 4a. NP_1 + Cop. + Neg.+X
Stage 4b. NP_1 + Mod. + Neg.+X
Stage 4c. NP_1 + <u>do</u> + Neg.+X

These stages show that the subjects are well on the way to full acquisition.

The implicational analysis in 6.6.4A show the order of acquisition of the various Aux. + Neg. as follows:

<u>Be</u>: 1. Is + not (Isn't) 2. Are + not (aren't) 3. Am + not 4. Was + not (wasn't)

5. Were + not (weren't) (Table 52A)

<u>Do</u>: 1. Did + not (didn't) 2. Do + not (don't) 3. Does + not (doesn't) (Table 52B)

<u>Modal</u>: 1. Can + not (can't) 2. Will + not (won't) 3. Must + not (mustn't) (Table 52C)

Since the coefficients of reproducibility are quite high for all three tables, the above acquisitional order is considered to be acceptable for the given data. However, the acquisition of Do-Auxs. (Table 52B) found in our analysis is not consistent with those reported in the literature. The reason is probably due to the mistaken notion by most four NEM subjects that 'did not' is a negator, hence the high occurrence of 'did not' used both correctly and incorrectly.

7.2.2.C. Sequence of Development : Yes/N Question

L1 and previous L2 studies have isolated the following stages of acquisition:

1. Y/N questions with V-aux or copula missing, the question being signalled by rising intonation along, e.g. Daddy go?
2. Y/N questions containing V-aux or copula before inversion is learned, is signalled by rising intonation alone
3. Signalling Y/N question by word order, i.e. inversion of V-aux or copula and subject, and by rising intonation.

F-MV sentences are slightly different since Do-insertion and inversion comes later than in the other sentence types. The stages are given in the following table:

TABLE 53B. Yes/No QUESTIONS : Stages of Development

L1 English Klima & Bellugi (1966)	L1 Spanish Butterworth & Hatch (1978)	L1 Hindi/Khasi
<u>Stage 1. Rising intonation as question marker. no Cop. or Aux.</u>		
Fraser water?	You come by Friday?	Yesterday he ask book?
See hole?	He understand chess?	Rita likes rosgulla?
Sit chair?	You no understand?	Danny wants tea?
		You are going to friend?
<u>Stage 2a. Aux or Copula acquired. No inversion</u>		
I have it?		You have a book taken?
You can't fix it?		She was going to school yesterday?
This can't write a flower?		Yesterday they are ask a book?
<u>Stage 2b. Prefixing a question marker to a declarative sentence.</u>		
		Dhoes he can come to school?
		Do you are going to home?
		Do your house is far from here?
<u>Stage 3a. Inversion of Aux., Copula or modal.</u>		
Are you going to make it with me?		Was she going to school yesterday?
Can I have a piece of paper?		Are the children now reading?
Will you help me?		Tom's house is it far?
<u>Stage 3b. Acquisition of Do-support</u>		
Does lions walk?	Do you live in Boston?	Do you go to school?
Oh, did I caught it?	Do you have one?	Does Danny want tea?

As for negation, inverted auxs. as operators in Y/N questions have been isolated for scalagram analysis and the results have been presented in Table 52 E, section 6.6.4B. The order found is:

1. Modal 2. Do 3. Be 4. Did

Again, there is a discrepancy in the results because the use of inverted 'Do' is found to precede Be-Aux. Here again the reason could be the confusion of NEM subjects regarding the status of 'Do' whether it is a question introducer or a tense carrier and question operator. Secondly, since in this analysis Be-Aux. has not been divided into is, am, are, was, were, but amalgamated into Be-Aux., the results could be biased.

7.2.2.D. Developmental Sequences of Wh-question

Different researchers have isolated some features of early stages on the development of Wh-questions in the following way:

Bellugi, 1965, 1966, L1

1. No inversion
2. Inversion in affirmative before negative sentences
3. Tense marker in main verb before the introduction of do-support in F-MV sentences

Klima and Bellugi, 1965, L1

1. No do-support
2. No inversion
3. No tense
4. Earliest Wh-question word to appear: What, Where

Hatch, 1974, L2

1. Earliest Wh-question word to appear: What, Where, Who
2. No copula
3. No tense
4. No do-support

Cancino et al. 1978, L2

1. Unpreposed Wh-questions, e.g. He is going where?
2. Preposing, e.g. Where he is going?
3. Inversion, e.g. Where is he going?

The generally accepted stages of development are those found in Table 53c below:

TABLE 53C. WH Questions: Stages of Development.

L1 English Klima & Bellugi 1966	L1 Norwegian Ravem 1969	L1 Hindi/Khasi
Stage 1. No Aux.		
Where ann pencil?	What you eating?	Children what to you ask?
Where horse go?	What dem drink?	When you to Gauhati go?
Where Mama boot?	What you say that for?	She why buy wrong book?
Where milk go?		
Who that?		
Stage 2.		
What book name?		
What me think?		
Why you smiling?		
Stage 3. Non-inversion of Aux. and NP_1 No Do-support		
What I did yesterday?	What he's doing?	Why he sit in the class?
What he can ride in?	What you did in Rothbury?	How you find her yesterday?
Sue, what you have in your mouth?	When you went there?	Why you went alone?
Why kitty can't stand up?	Why drink we tea and coffee?	Why I am can't go with you?
		What I have to say with Principal?
		When you will go to Gauhati?
Stage 4 Do-support and inversion		
	What did you move that night?	
	What did you talk to them?	
	What did you do to yesterday?	

Table 52F in 6.6.4.B gives the results of scalagram analysis as follows:

1. Wh + will 2. Wh + can 3. Wh + did 4. Wh + Be
5. Wh + do

Part of the results are consistent with those found in the literature: modals are inverted quite early (e.g. in Bellugi, 1965, 1966). However, the precedence of Wh + did before Wh + Be again reflects the failure of the present investigation to separate the use of Wh + did as a general unanalysed Q. marker from its correct use, by some of the learners.

7.3. Accounting for the Order of Acquisition of Tense and Aspect and the Developmental Sequences for Negative and Interrogative Structures

In sections 7.1 and 7.2.2 we have discussed the theoretical assumptions regarding universal processes of language acquisition. It is the innate cognitive mechanisms which probably dictate the order and sequences reported by researchers on morpheme acquisition, negation, interrogation, relative clauses etc. Beyond stating these broad observations, researchers in SLA are still looking for adequate theories to account for the invariant orders/sequences found. What have been offered by L1 and L2 researchers so far have not been empirically borne out as being entirely satisfactory. Brown (1973) has contributed much to the reasons for the order of acquisition of morphemes, such as frequency, perceptual saliency, syllabic stress, semantic and syntactic roles. Brown seems to emphasise frequency, semantic and grammatical complexity as determinants of order. However, empirical investigations reveal that frequency does not correlate with the order found (rho + .26); Brown's conclusion is that "no relation has been demonstrated to exist between parental frequencies and child's order of acquisition" (p.362).

In L2 studies, Larsen-Freeman (1975) finds that her data correlates with Brown's frequency counts, therefore she believes that frequency still may be a possible hypothesis. However, Dulay et al (1982) are pessimistic about frequency as an explanation

"the effects of frequency on the acquisition of syntactic and morphological structures seem to be far from clear or simple" (p.39). Similarly, Brown's predictions that semantic and linguistic complexity would account for the order is borne out only in L1, but not L2 studies. Dulay and Burt (1975) therefore conclude that

> "... it (cumulative complexity) still consists entirely of a description of what is to be learned to explain the learning sequence .... This complete dependence on a description of the target language to explain acquisition order is made clear by the reasons Brown gives for any possible failure of his cumulative complexity notion to predict learning sequences".
>
> (Dulay and Burt, 1975:218)

Felix (1984) has posed two questions regarding "the development problem" in language acquisition: "First we may ask where those of the child's constructions come from that do not exist in the adult language ... The second has to do with the fact that, at regular intervals, children move from one stage to the next" (p.14). Felix himself is concerned with the second, stage -transition problem since this is "the most challenging aspect of the developmental problem" (p.15). Felix's proposal is linked to the emergence of universal principles "According to a specific maturational schedule so that at any stage of the development the child's grammar construction will be guided (or rather constrained) by a proper subset of universal principles" (p.28). The child is obliged to restructure his grammar if it violates a principle of Universal Grammar (UG). In explaining the emergence of German word order, Felix has proposed three such principles which successively eliminate possible word orders.

(1) The X-schema which constrains random constituent order in the phrase-structure component and allows only SVO, SOV and OSV
(2) Case Theory (assumed to be part of the maturational schedule, hence a UG principle) allows SVO and SOV
(3) Structure-Preserving Constraint allows SOV

Similarly, Felix attributes the transition from Stage I Neg + S structures to Stage II no/nein + VP (sentence-internal negation), to a yet unnamed universal which prohibits Neg external structures. Felix bases this 'principle' on Dahl's observation that sentence-initial (Neg + S) placement is possible only in verb-initial languages (Dahl, 1979:93), and on Chomsky's (1980, 1981) views on Universal Grammar, which contains a set of principles which constrain the class of possible human languages/grammars and the range of options and structural properties available. Felix concludes that "the impossibility of pre-sentential Neg placement follows from independent properties of the theory of grammar" (p.36). It is to be noted though, that Felix stops short at Stage II, without positing the universals needed for the transition to Stage III. Felix's explanations also rely heavily on generative grammar: Lastly, Felix does not explain the different structures at different stages, i.e. he has only mentioned the first question without attempting to give possible answers.

Gass (1984) has highlighted the importance of universals in IL studies by data showing that "the acquisition of syntax cannot be adequately described without recourse to language universals" (p.22). Gass has cited numerous examples of universal constraints, in the area of syntax, phonology, morphology etc. across a wide range of research. However, she challenges the assumption that all types of universals will have the same effect. There are possible interactions with the L1 and L2, because ILs involve more than a single linguistic system; thus "it may be more appropriate to talk about shaping influences rather than absolute constraints" (p.4). Eckman (1984; cited in Gass) too found that violations of universal constraints in ILs which can be explained in the light of the TL or the NL. It seems then that while universals exert a considerable influence in developing grammars, their influence is not so clearly defined.

The inadequacy of any one explanation is understandable, mainly because language is an extremely complex phenomenon, involving the interactions of different factors. It is perhaps profitable to look at these factors within a single comprehensive framework which will consider factors like neurological (e.g.

limitations on memory and storage of linguistic material), psychological/cognitive (e.g. mental apparatus for linguistic processing in perception and production, strategies, maturational and developmental processes), social and communicational (the semantic and functional value in communication, interaction processes in language contact situations), and physiological/physical (an adult learner's usual inability to produce the phonemes unique in the L2). The list is not exhaustive, but a guideline to our discussions.

Miller (1967) has discussed the phenomenon of schematization or recoding in memory of a large amount of material by "chunking" into bits, because the immediate memory cannot hold more than 7 ± 2 'chunks' or units of information. It is possible that the representation and storage of new information (i.e. new L2 material) is even less than ± 7. If that is so, then there should be a principle of selectivity to eliminate less relevant elements from the more relevant ones. Such a principle has been recognized by linguists like Chomsky and Fodor: "the organism's inborn predisposition to select quickly and without mistake a specific working hypothesis" about relevant stimuli. Ervin-Tripp(1973) has also observed that "given the small capacity in the immediate memory span, the selectivity of such storage is important in child language learning" (p.270). Neurobiologists like Changeux (1980) and psychologists like Mehler have emphasised that learning is a selective process "to learn is to eliminate". Chomsky and Fodor(1980) believe that there are innate and highly specific filters or discriminative criteria to select and to eliminate. Hence actual functioning elements tend to be fixed, inactive ones tend to decay. Braine (1971, cited in Ervin-Tripp, op.cit) believes that frequency and recurrence prevents the decay of stored information. This again accounts for the fact that new information is more likely to be decayed. In language acquisition, Brown (1973) has observed that <u>-ing</u> is very stable (90%) while <u>be</u> comes much later. Perhaps this is due to the fact that the progressive morpheme <u>-ing</u> is more frequent, because it is invariant, while <u>be</u> is comparatively less frequent since it has five allomorphs <u>am</u>, <u>is</u>, <u>are</u>, <u>was</u>, <u>were</u>. In the context of the selectivity principle, <u>-ing</u> will be retained but <u>be</u> will be temporarily eliminated.

Perhaps a stronger argument for the selection principle can be based on meaning and function. Slobin (1971) has observed that it is possible to store form and meaning independent of each other, but that the "underlying meaning of a sentence is more persistent... in memory than the surface structure in which the meaning is expressed" (pp.26-27). In this context, -ing is more likely to be stored in memory because it has high information value as aspect marker. Be on the other hand is a redundant feature until it is marked for tense and number (Brown, 1973). Also, be is recoverable from the context in greater measure than -ing. When -ing is acquired, a more general form of be (e.g. is) will be added. The higher specificity of are (+ Plu), was (+ Past) and were (+ Plu + Past) makes them likely candidates for a later acquisition. The gradual acquisition of the full form Be + V + ing is an example of the step-by-step selection of elements in a verb phrase which starts with the single main verb.

The assumption that functional and communicative considerations dictate the linguo-cognitive mechanisms to process those elements with high information value first, is empirically supported by the 2-3 word sentences in early naturalistic acquisition. L1 and L2 studies abound with "telegraphic"-type sentences which are stripped of functions, inflections, and "little words" like Auxs. These basic structures N + N/V/Adj, Wh + V/N, No + N/V/Adj are strings of contentives which carry the major meanings of a sentence (e.g. Daddy go; No want; Where Kitty?)

7.3.1. Development of the Tense and Aspect System

It is possible that from a highly complex tense and aspect system, the innate mechanisms will select first a grammatical category with the highest 'functional load'. (10)

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(10) Basically, the term is similar to Brown's (1973) term 'semantic value', and to 'information value' referred to in the literature. The term 'functional load' covers both these concepts and others too. The choice of the term focuses on the functional aspect and utility of different linguistic elements in actual communication. Both semantic and functional considerations are included.

The present progressive is considered to have a high functional load because of its usefulness to describe present ongoing action, especially in a child's here and now context, e.g. "dog running", "baby eating". To a child/learner, the present progressive probably has a basic semantic concept: "-ing is used to describe an action (now)", thus it is functionally useful. Other reasons like perceptual salience, phonological stability etc. do play a role, thus making the progressive "one of the most pervasive forms in the speech environment of a child" (Wagner-Gough, 1975).

At the other extreme, the functional load of the simple present is comparatively low. Most grammarians agree that it has very restricted uses to describe present action, which, realistically speaking, have a certain duration, however short it may be. As Jesperson (1956) has pointed out "any conceivable action cannot fall within the theoretical zero-point of the actual present" (p.17). Leech (1969) considers the actual present as the marked or abnormal alternative to the present progressive because its meaning is related to the dramatic (e.g. "I open the door") or in certain contexts (e.g. Sports commentary). The 3rd person singular, as a sub-class of the simple present, has an even lower functional load. Its main function is a slight modulation of meaning in the marking of person. Since its function is a grammatical one (marking concord between person and present tense), it contributes very little to the actual communication; one can say "He go to school by bus" without much loss of meaning. The little practical value or functional load of the 3rd person singular might account for its late acquisition (or even its non-acquisition). Table 14 (p. 137) showing group ranges of correct use reveal that no NEM(K) learner has acquired this category, if the percentage of acquisition is assumed to be 80+. Again, only 13.3% of the NEM(H) learners have acquired the 3rd singular. The figures in Table 20A are also revealing - even the highest class in NEM(K) has a mean at only 8% in task 1, and a slightly higher 37.4% in task 2. H10 is no better: 40.5% in task 1, and 49.3% in task 2. So it seems that even after about ten years of learning English, the 3rd singular is still a

late/non-acquired category. If it is used at all, it is probably used only for monitoring in task 3. Thus, from our sample, only the E7 and E10 learners seem to have acquired the 3rd singular, while E4 is in the process of acquiring (around 60% means for tasks 1 and 2). The late/non-acquisition of the 3rd singular is puzzling if we try to account for the phenomenon in terms of complexity, because it is conceptually not difficult (Krashen, 1982: 114). Therefore it is perhaps more logical to assume that it is being ignored by learners who are striving for the more important, or semantically/communicatively useful elements and structures in the TL. The learners employ either of the two learning strategies to simplify, reduce and regularise linguistic data so that two rules for the same tense have been reduced to one.

(a) 1. Vb Pres ⟶ Vb Pres + ∅
2. Vb Pres 3rd sing ⟶ Vb Pres + S
⟩ Vb Pres + ∅

(b) 1. Vb Pres Prog ⟶ Vb Pres + ing
2. Vb Pres 3rd sing ⟶ Vb Pres + S
⟩ Vb Pres + ing

The functional load of the simple past is higher than that of the past progressive or the past perfect. The simple past refers to a single point in the past which is ± specific, hence it is deictic and referential, e.g. I went there (yesterday/ last week). The non-specificness of either the past progressive or past perfect restricts their functional load only to telic situations (Comrie, 1975:47) which involve the process leading up to a terminal point and the terminal point, e.g.

187. I was eating when she came in

188. John had almost completed the book when he died

Since there is an interdependence between the character of the verb (stative, dynamic etc.) and aspect, there are other restrictions on aspectual use. Thus stative verbs cannot be used in the progressive.

189. I was knowing her family

Restrictions on the use of the perfective aspect stem from the fact that two time points are involved in its use. Thus for the present perfect there must be a present state (He has been sick ...) and a past situation (... because he ate too much). In the past perfect there must be a relation between a past state (He had been in the University for three years ...) and an even earlier situation (... when his father died).

In the light of the notion of 'functional load' we speculate that the present perfect has a higher possibility of occurrence than the past perfect. The resultative, experiential and recent past uses of the present perfect are likely to occur more often than the past uses of the perfect. Therefore the present would possibly precede the past, though our findings indicate otherwise. (11)

Lyons (1976) has pointed out that gaps and assymetries exist in the use of tense and aspect in any language because of two modes of descriptions of time:

(1) the experiential, subjective, dynamic and deictic mode (12)

(2) the historical, objective, static and non-deictic mode

These two modes of conception and description of time favours one tense and/or aspect category over the others. "It is for this reason that aspectually unmarked simple non-past sentences in English - 'John sings' - are only rarely constructed as referring to events" (Lyons, op.cit.:689). Such a situation would favour the use of the present progressive : John is singing.

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(11) Probably because of the nature of the elicitation method

(12) "We adopt the experiential mode for the description of contemporary situation" (Lyons, 1976:689)

In the description of past situations we can switch between one mode of description and the other for stylistic or rhetorical purposes. However, the historical mode is the norm from which the experiential mode constitutes a deviation; and this is why the past progressive in English is less frequently used than the present progressive (p.689).

7.3.2. Development of Negative Structures

Two important concepts that we would like to discuss here are Halliday's (1970, 1975) theme: rheme distinctions in an information unit. Halliday relates the importance of the first position in a clause, and the theme which is the "psychological subject" (Halliday, 1970:22) of a clause. As such, theme has both structural significance and a deictic function "it defines the speaker's angle on the content" (p.23). It may be possible therefore to view the Neg operator as the theme. Its function is to signal negative intention and to distinguish negative meaning from an affirmative one. Since the first position is thematic, the Neg element occupies that position in early negative structures. Two explanations are offered: the first posits that State I is a subjectless, aux.-less stage since learners are still processing two words at a time. Notice that these are the most important elements for communication in negative sentences, namely, the negator and the negated noun/verb/adjective/adverb. Sentences like "no heavy", "no want" are semantically transparent, hence highly functional to convey denial or rejection in a given context. The second explanation holds that the subject NP has been acquired, but that it has been supplanted (temporarily) by the psychological subject or thematic No. To a learner the communication of negative intention would probably be uppermost. At this time there may be two competing hypotheses regarding thematic position: either the grammatical subject (which according to Halliday normally occupies the first position in a declarative sentence) or the psychological subject. The two sentences of K4 S1 in column 3 seem to indicate that the negative intention, hence the latter hypothesis, as being stronger. Perhaps this has to do with the communication of the basic intention No. Another

reason is that the selecting filters may specify that the grammatical subject is retrievable from the context, whereas the negator is not.

The appearance of the grammatical subject in Stage II (which is still Aux.-less, but with more elements like the direct object and adverb) could be attributed to its being acquired, if we hold the first assumption. If the second hypothesis is true, e.g. the supplanting of the grammatical by the psychological subject, then we can also assume that the learner recognizes that there is no loss in negative intention even if the negator is placed after the subject NP, hence he reinstates the subject NP.

It is interesting to tie up these speculations with Felix's ideas (discussed in p. 287) about universal constraints. It may be that memory limitations and universal cognitive mechanisms process No + N/V/Adj/Adv. initially, at the behest of the brain's command to look out for functionally loaded elements for negative sentences. When structures like "no water", "no go" are processed as a single chunk (see discussion on Miller, p.289) the increased storage space allows more elements in, probably at the specification of Felix's postulated principle.

Stage II also shows the increase in negators from a single, overgeneralized No to No and Not. Stage III brings in the unanalyzed don't as a third negator (Bellugi and Klima, 1966) note that can't, wo&a't are also unanalyzed negators. When the Aux. system is gradually being acquired, there is also greater accuracy in negative sentences (Stages IVa and IVc). Borland (1984) observes that "the order of formation of the four Aux + Neg. types included in the study reflect the process of Aux. development" (p.307). Hence the study of the emergence of negative sentences between Stages IVa - c should really be in relation to the study of Aux. development. Again, the emergence of the Aux. system should be in the context of the emergence of the tense and aspect system and the non-verbal complement system (copular sentences).

7.3.3. Development of Y/N and Wh-questions

There are some formal properties of interrogation which are available in natural languages, such as: intonation, interrogative

operators (question marker or question particle), and inversion. Some languages use all three to signal interrogation (e.g. English) while others use only one or two. Intonation is a universally accepted marker of interrogative sentences (Ultan, 1978: In fact, rising intonation is the only interrogative marker in most languages for Y/N questions, and it is intonation which distinguishes questions from non-questions.

Perhaps because intonation is so basic in question formation, it is the first to be acquired in Y/N questions. In Table 56 Stage I is marked for interrogation only by rising intonation. At this stage there is no copula or Aux. which may act as a question operator. In most cases, especially in the spoken discourse, rising intonation is sufficient to signal interrogative intention. In the framework of a functional, developing communication system mentioned earlier, intonation though a non-syntactic category, is considered to have a high functional load in actual communication. Inversion of subject and verb on the other hand has low functional load because it does not add to the communicative value of a question. In fact, writers like Labov and Labov (1978) consider inversion as a redundant marker of interrogation. Another reason for the late or non-acquisition of inversion is linked to typological universals: inversion according to Ultan (op.cit.) occurs only in some six European languages, therefore it is non-universal and marked. The given reasons probably explain the non-acquisition of inversion by most of the NEM learners in this study (Tables 35F only 20% K10, and 30% H10 subjects reach the 80-100% level of proficiency in Wh-questions translation task. Table 35G only 30% H10 subjects reach the above level in Wh-question error correction task. Table 35H only 20% K10 subjects for Y/N translation task. Table 35I 50% K10 and 80% H10 subjects reach level 5 in Wh-question transformation task).

English also makes use of interrogative operators: a verbal element in Y/N questions, and pronouns and adverbs in Wh-questions. In English the question operators are free morphemes which occupy the initial position. Both the finite element of the verb and the Wh-element are thematic in Y/N and Wh-questions

(Halliday, op.cit.) Normally, request for information about the Y/N polarity (assent vs. dissent, acceptance vs. rejection etc.) is carried in the verbal interrogative operator in Y/N questions. If we follow the same arguments given for the acquisition of no in negative sentences, we would expect that this question specifying element would be acquired. Two reasons probably rule out this expectation: the specification of interrogative intention has already been given by rising intonation. Secondly, the placement of the Q-operator in Y/N questions would have to be via the inversion rule, which we have already argued to be a redundant syntactic feature peculiar to English and a few other languages.

The status of the Wh element is different; the placement of Wh element does not require the inversion rule, so that the non-acquisition of this syntactic rule does not affect the position of the Wh element. The Wh element has a high functional load since it expresses the roles of the speaker and hearer as one who requests communicative action, and one who provides a specific piece of information. Hence, "the intrinsic theme of Wh - Q is the Wh element ... (which takes) precedence over the subject" in the first position (Halliday, op.cit.: 25).

The importance of the Wh element as a meaning can be exemplified from a typical discourse exchange among Khasi speakers:

Q :	shano?	Ans.:	sha yew
	(Where?)		(To market)
Q :	balei?	Ans.:	ba nga kwa?
	(Why?)		(because I want to)

Givon (1979:217) has pointed out that in Wh-question constructions, the focus is in the interrogative element while the rest of the sentence is presupposed:

	Focus	Presupposed
(a)	Where?	
(b)	Where	going/go?
(c)	Where	you going?

(d) Where you are going?
(e) Where are you going?

Semantically, there is no reduction in meaning between sentences 190c-e, while in 190a the subject and verb, the presupposed, given information, are deleted but can be retrieved in the situational context. The deleted elements from (a) to (e) show their degree of importance in information and semantic value. If we view the sequence of acquisition in a functional, semantic framework, it becomes clear why Auxs. like copula, do etc. and lack of tense or aspect (e.g. in 209b) are not basic to communication; their roles are more syntactic. As mentioned earlier, inversion of subject and aux. verb is a purely syntactic exercise; there is no difference in meaning between (e) and (d), neither is there any loss of information.

The other source for the late or non-acquisition of the inversion rule is its contradiction to Slobin's principle regarding continuity in word order. In fact, the inversion rule breaks the Aux. and the verb from the verb phrase, e.g.:

Y/N question : He is going alone ⟶ Is he going alone?

Wh-question : Why he is going alone ⟶ Why is he going alone?

Compare this with Hindi, where the VP structure is maintained:

Y/N question Voh akela ja reha hai?
he alone go ing is

Wh-question Voh akela kyon ja reha hai
he alone why go ing is?

In comparing L1 and L2 structures as in the above examples, the nature of the L1 to influence the acquisition of L2 structures is regarded as a possibility. Though nothing conclusive has been said about L1 influence, many theorists and researchers are of the opinion that the L1 does play a part. Corder (1978:99) believes that the characteristics of the L1 may 'facilitate' or 'not

facilitate' second language learning according to its similarity or dissimilarity in structures with the L2. Similarly, Wode (198 has argued that the nature of the L1 and reliance on the L1 does take place if specific prerequisites and certain conditions are met. Though such conditions are not yet specific, it is reasonable to believe that some acquisitional characteristics are conditioned and influenced by the L1, i.e. the weak version or form of the contrastive hypothesis. The non-existence of the inversion rule in Hindi and Khasi is therefore a possible reason for the non-acquisition of interrogative word order by most NEM learners.

Lastly, word order phenomenon has been discussed by Rutherford (1982 :95-96) within the theory of markedness. Discussing Dulay and Burt's (1978) data on Wh-questions, Rutherford observes that the unmarked but incorrect declarative word order question form precedes the correct but marked question word order. Thus if we posit that sentences like

191.You will go to school?

192.Why he is not reading this time?

as unmarked, incorrect interrogative structures, they are acquired earlier than the marked and correct inverted forms

193.Will you go to school?

194.Why is he not reading this time?

7.3.4. Interim Summary

In section 7.2 we have tried to examine similar orders/ sequences in the light of universal cognitive processes. Some data from negation and interrogation of the lower NEM classes indicate that these basic structures reflect the syntax of the L2 and not the L1, i.e. the L2 syntax is acquired in its own terms. The data therefore substantiates Slobin's Universal C 2: "Word order in child speech reflects word order in the input language" (Slobin, 1973:197). Also, the data confirms theoretical assumptions that word order is acquired quite early since it is one of the most salient in the input data (Corder, 1977:85).

In trying to account for the orders/sequences, and the similarity of tense and aspect declarative sentences, negative and interrogative structures at different stages of acquisition, we

have focussed on neurological and sociosemiotic factors. Since these are considered important, we will expand on our discussions regarding these factors.

A possible "universal" in language acquisition relates to the neurological constraints on processing linguistic information and the finite span of immediate memory (Miller, 1967). Perhaps we can draw from Miller's observation (p.37) of a learner of radio-telegraphic code, and hypothesize that: (i) a learner initially internalises each word as a separate chunk, hence the memory space is very limited; (ii) familiarity with words/elements and analysis of their internal meaning enables the (Stage 1) learner to organize words as single units (chunks), thus increasing memory space a little. Further organizations into bigger chunks increase more storage space, hence the increase in length of the structures between Stage 1 through Stage 5. Miller has observed that, in order to form the "familiar units" through "a process of organizing or grouping the input" (p.37) a great deal of learning is involved. In the context of language acquisition, reanalysis and recoding of linguistic information is a continual process linked to increasing memory space. The continuous changes in such recordings and mental representations of linguistic information are reflected in the structures unique to each stage.

We have argued that, because of very limited storage space at the initial stages of language learning, some principles of selection must be established. We have focussed on functional load as the basic factor for the selection of the linguistic elements/categories. On a general level, the assumption that the evolution of language is dependent on functions agrees with the Hallidayan concept of functions (Halliday, 1973, 1976) and others. Since we are dealing with second language learners who have probably acquired most of these functions (regulatory, interpersonal etc.), the present study interprets functions in terms of the semantic and functional values of lexical items, grammatical categories, negative and interrogative operators, morphemes etc.

The principle of selection on the basis of differential functional loads of linguistic elements seems to account for most of the observed data in language acquisition. Also, pidgins and other

simple codes like Motherese, seem to follow this principle. Thus we hypothesize that the principle is a universal tendency in naturalistic language acquisition.

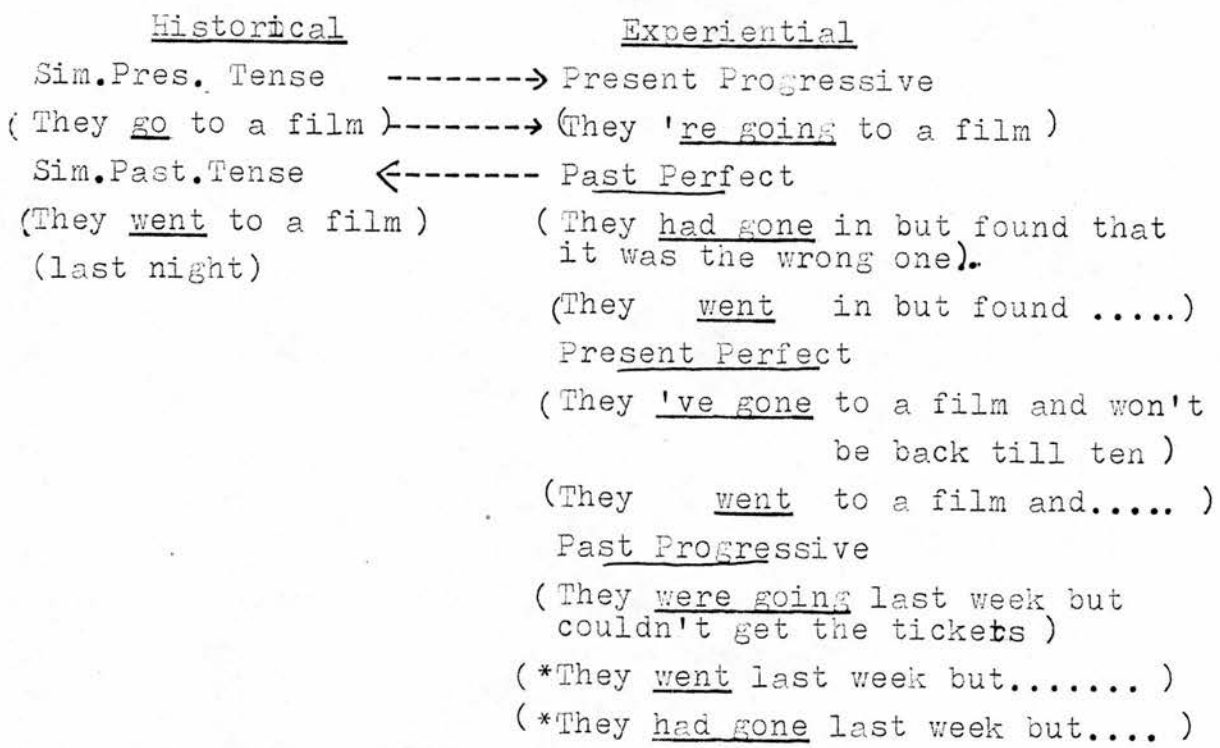
The concept of functional load gains support because it partially explains fossilization. Since language is a communicative tool, some learners stop short at a point when they achieve some measure of communicative success or "functional competence" (Jain, 1969), which is short of the TL norm but which is sufficient for the immediate purposes of communication. Attested evidence can be found in learners like Zoila (Shapira, 1978), Chamot's (1978) subject and some of Schumann's (1977) subjects. What constitutes functional competence are probably those categories (e.g. present progressive), structures (uninverted questions) and elements (contentives) which have high functional load. What do not feature in functional competence are low-function elements and structures. Such elements like the -s morpheme for 3rd singular merely modulate meaning; others like inversion of subject-verb in interrogative sentences are redundant; while others are those which can be retrieved from the context, e.g. the be aux. in progressive sentences. It may be the case that categories with very opaque conceptual meaning, e.g. the past perfect progressive, may also be outside the scope of the learners.

Both learners and users who have fossilized at a certain stage probably adopt a strategy of substituting an acquired form for an unacquired one, or a more general for a less general form. Thus the concept of functional load is linked with the substitution of categories, i.e. a category like the 3rd singular is substituted by the present progressive which has been acquired earlier. The latter is therefore like an "all-purpose" tool for describing verbs in the present tense ($\pm$ Prog.). Similarly, the simple past is made to do duty for the present and past perfect by learners, since both have a past tense function (reference to the past). The category which substitutes for others is generally one that has a high functional load. Theoretically, the categories are mutually exclusive and one cannot substitute for the other (Comrie, 1976:33). In actual use by learners the functions of one category are/may be

taken over by another category. The substitutability of one category by another by learners are indicated by the broken arrows; where substitutions cannot take place, the sentences are starred.

FIGURE 28A.

The substitution of Grammatical Categories by Learners.



Functional load is also linked to frequency of occurrence. If an element has high functional load, it is likely to occur often in discourse/communication. We have seen that the present progressive has a high functional load, therefore it occurs often in speech.

Though functional load is seen as a major contributing factor for language acquisition and the reason for the orders/sequences, it may not be the only factor. Hence the approach taken in this study to account for the orders/sequences is eclectic, drawing from many sources. This is because language acquisition is considered to be a very complex process so that a multi-factor approach is considered to be more feasible than one which emphasized only one factor.

In Table 54 below we present a tentative multifactorial profile to account for the order/sequences of development and language acquisition. The table is based on Brown's Table 13 (Brown, 1973:84). However, while Brown's Table lists some properties of functors only, the table below includes other linguistic devices like inversion, intonation etc. Secondly, the table predicts prior acquisition to those elements with more pluses, and late or non-acquisition to elements with minuses. No claim is made about validity because the binary assignment is subjective (though based on readings on the subject). The profile is just a tentative attempt to find a method to deal with the problem of orders/sequences.

TABLE 54, A MULTIFACTORIAL PROFILE FOR THE ORDER OF ACQUISITION

COLUMNS / LINGUIS.	1. SEMANTIC MAJOR + MODUL. −	2. CONTEXT WIDE + REST.−	3. REDUNDANCY NOT + RED.	4. RETRIEVABLITY NOT+ / RETRI.	5. THEMATIC THEM + NOT −	6. FREQUENCY HIGH+ LOW −	7. SEMANTIC COM. NOT + COMP. −	8. LINGUIS. COM NOT COMP. −	9. MARKEDNESS +UNM + MARK. −	10. SALIENCY SALIEN+ NOT−	11. M. T. SIM+ NOT−	12. TEACHING FOCUS + NOT−
1. PROG.	+	+	+	+		±	±	+ I	+	+		+
A. −ING.	±	±	±	±	?	±	±	± N	±	±	H ± K −	±
B. AUX. BE	−	+	−	−		+	+	+	+	−		+
2. SIM. PST.	±	+	±	±		±	+	+ F	+	±		+
A. −ED	±	+	±	±	?	±	+	+ L	+	−	H + K −	+
B. IRREG.	±	−	±	±		−	+	+	+	±		
3. PERF.	−	−	±	±		−	−	± E	?	±	H + K −	+
A. −EN	−	−	+	±	?	−	−	+ C		−		±
B. HAVE	−	−	−	−		−	−			+		+
4. 3RD. SING	−	−	−	−	?	−	+	+ T	−	−	H − K −	+
A. −S	−	−	−	−		−	+	+	−	−		+
5. NEG. OPER ATOR	+	+	+	+	+	+	+	+	+	+	H + K −	−
6. NEGATED N/V/ADJ/ADV.	+	+	+	+		+	+	+	+	+		?
7. W. O IN A. DEC. POS.	±	±	±	±	?	±	±	?	±	±	H − (Gol) K +	±
B. NEG.	−	+	−	−		+	+		+	−		−
8. WH. OPER ATOR	+	+	+	+	+	+	+	+	+	+	H − K −	−
9. Y N OP ERATOR	−	+	−	−	+	+	+	−	−	+		−
10. INTON. IN QUES.	+	+	+	+	+	+	+	+	+	+	?	−
11. INVER SION	−	+	−	−	−	+	−	−	−	?	H − K −	−
12. QUESTIO NED/N/V/ADJ.	+	+	+	+		±	+	+	+	+		?
13. DO-SUPP ORT IN NEG. & INTER. SEN.	−	−	−	−	−	−	+	−	−	−	H − K −	+

7.4 The IL Developmental Continuum

This section will be concerned with the IL developmental continuum and the examination of hypotheses 3 which are stated in Chapter 3.

Using the results from the implicational scales which were used to determine accuracy/acquisition orders, a developmental continuum has been constructed for the acquisition of tense and aspect categories, and for the syntax of negation and interrogation. Results from the frequency distribution of subjects and the Scheffe tests have been used to determine the positions of the 9 groups at different points of the continuum. Lastly, the movement of learners along the different points of the continuum and the resulting variable performances due to the degree of formality of the tasks will be shown, based on the ANOVA and Scheffe test results on task differences.

7.4.1. The Developmental Continuum of Increasing Complexity

In this section we will draw from the results presented in Chapters 5 and 6 and the discussion on the sequence of development in the previous section to illustrate the developmental continuum in all the areas studied. Throughout, the importance of a functional semantic approach has been stressed in discussing why certain forms or structures are acquired before others. The starting point of learners from a basic, universal semantax and not a developed L1 system, in the acquisition of a language, has also been discussed.

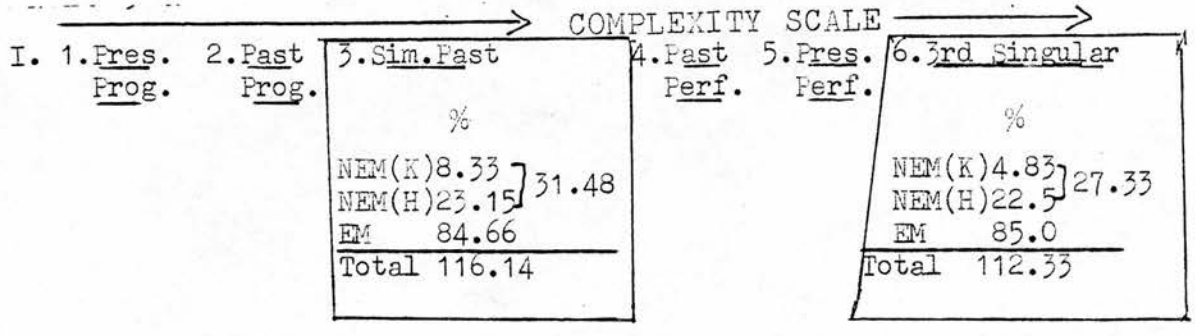
It has been generally recognised by theorists that the early stages of second language acquisition show certain characteristics of simple codes, such as a simple or non-existent morphological system, a simple pronoun system, lack of articles, copula, auxiliaries, modals, or other function words like prepositions; a fixed word order which express basic syntactic relations and a poor lexicon. As a learner progresses along the continuum of learning he gains more ground by complexifying the basic code at his disposal.

7.4.1.A. Tense and Aspect

Complexification involves the substitution of general by more

specific rules when conditions of appropriateness become evident. In our data on tense and aspect (Table 17) 65.0% of K4 subjects, 63.0% of H4 subjects and 35.0% of E4 typically employ a general rule of using an uninflected main verb for 3rd singular. The same rule is used for simple past tense by 73.75% of K4, 56.0% of H4 and 18.5% of E4 learners. This indicates undifferentiation of 3rd singular and simple past since a general, uninflected main verb is the all-purpose tool. Another type of undifferentiation for tense and aspect categories is the use of present progressive for 3rd singular by 33% of K7, 80% of K10, 38.5% of H7 and 48.5% of H10 students (Table 17). The same can be said by looking at column 2 of Table 18 , which indicates that the past progressive is a general rule to cover for simple past tense and past progressive. In the above cases, there are high percentages of subjects mostly from NEM schools who have not gone up far enough in the implicational scales for tense and aspect presented in Table 9 and listed below.

TABLE 55 The Scale of Complexity for Tense and Aspect (3rd singular and Simple Past) NEM(K), NEM(H) and EM



The figures for Table 55 are taken from Tables 17 and 18 based on the picture description test for use of simple past and 3rd singular. While EM groups remain constant at about 85% of subjects using simple past and 3rd singular correctly, 4.15% (31.48 - 27.33) of NEM students fail to go up the scale till the 3rd singular.

TABLE 56. The Scale of Complexity for Tense and Aspect (All categories) NEM(K), NEM(H) and EM

II.	1.Pres. Prog.		2.Past Prog.	3.Sim. Past	4.Past Perf.	5.Pres. Perf.	6.3rd Singular	
NEM(K)	26.7	36.4	23.3	23.3	2.1	0.0	0.0	13.3
NEM(H)	46.7		36.7	23.3	16.7	16.7	13.3	
EM	96.7		96.7	76.7	66.7	66.7	66.7	
	170.1		156.7	123.3	85.5	83.4	80.0	

The last row of Table 14 for percentages of subjects who have reached the 80-100 range, provide the figures for Table 56 above. Between the present progressive (i.e. first acquired) and the 3rd singular (last acquired) there are 60.1% (73.4 - 12.3) NEM subjects who have not reached up to 3rd singular in the tense and aspect complexity scale above. Similarly, there are about 30% of EM subjects who fail to elaborate their tense and aspect system such as to include the unique characteristics of the 3rd singular.

Traugott (1977:154) has observed that "categories that are further up the implicational scale (i.e. more marked) are more difficult to learn in either first or second language acquisition than categories which are further down (more basic, less marked)". The figures above substantiate the view that the more marked categories like past and present perfect, and 3rd singular are acquired by fewer subjects than the less marked categories down the scale. Moreover, since the IL continuum is defined as one which is developmental in nature, subjects of class 4 who possess a basic code in tense and aspect system elaborate this system as they progress in their school levels (4 -- 5 -- 6 -- 7 -- 8 -- 9 -- 10) and are exposed to more teaching and forms of the TL. This is evident in the tables below, with 'class' as a marker of developmental stages.

TABLE 57 The Scale of Complexity for Tense and Aspect (3rd singular and Simple Past) - NEM(K), NEM(H) and EM

III. 1	2	3	4	5	6
Pres. Prog.	Past Prog.	Sim. Past	Past Perf.	Pres. Perf.	3rd Singular

Class	NEM(K)	NEM(H)	EM
10	20.5	49.5	100.0
7	4.5	25.5	81.0
4	0.0	0.0	73.0

FIGURES FROM TABLE 18. (PICTURE DESCRIPTION TASK)

Class	NEM(K)	NEM(H)	EM
10	8.0	50.5	100.0
7	6.5	16.5	95.0
4	0.0	0.0	60.0

FIGURES FROM TABLE 17.

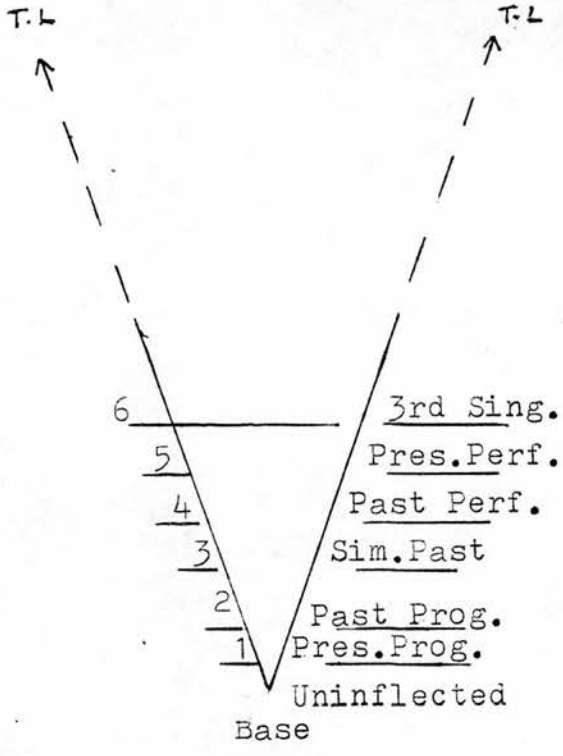
TABLE 58 The Scale of Complexity for Tense and Aspect (All categories) NEM(K), NEM(H) and EM

IV. Class.	1. Pres. Prog.	2. Past Prog.	3. Sim. Past	4. Past Perf.	5. Pres. Perf.	6. 3rd Singular
10	80.0	76.7	46.7	50.0	50.0	40.0
7	60.0	50.0	36.0	33.3	30.0	30.0
4	30.0	30.3	10.0	0.0	3.3	3.3
	170.0	156.7	92.7	83.3	83.3	73.3

(FIGURES FROM TABLE 10 OF PERCENTAGES OF SUBJECTS AT THE 80-100% LEVEL)

If each tense and aspect category above is represented by a horizontal line, the above total figures in Tables B and D are schematically displayed as

FIGURE 28 The IL Continuum of Increasing Complexity for Tense and Aspect



No.of subjects II	IV
80.0	73.3
83.4	83.3
85.5	83.3
123.3	92.7
156.7	156.7
170.1	170.0

In the above figure, the scale of complexity of the six tense and aspect system in English expands to the maximum at the 3rd singular as undifferentiated categories (starting at the uninflected forms) become more specific as functions, relations and morphological distinctions became more transparent to learners. (Since the scales are implicational, it implies that those subjects who have reached up at 6 have also differentiated, acquired and used all the other categories below (1-5). The majority of students who have reached up the scale of complexity and have elaborated their tense and aspect systems, are only those from E7 and E10. Similarly those who have reached up to 5 have acquired the categories 1-4 below it.

Our discussions so far and the schematic representation above, have illustrated that the IL continuum is one that is expanding in complexity and one that is developmental.

The continuum of tense and aspect obtained in the implicational scales (Table 9) can be broken down further for a detailed examination of the acquisition of a single category, or a set of categories. In order to illustrate the gradual complexification, development and acquisition of such a set (consisting of the simple past, present and past perfect as past-time related categories), we have constructed an implicational scale for the set. Following Platt (1977), possible linguistic environments have been isolated: consonant + id consonant + d/t, vowel + id, vowel + in (for perfective aspect only), vowel change (VC), consonant change (CC), no change (NC), get and have. * Twenty-eight class 7 and 10 NEM subjects exemplify the gradual development of the three categories above, in the implicational scales below:

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* See example answer sheet No.1 in Appendix V.

TABLE 59 Guttman Scales for Simple Past, Present and Past Perfect

ITEM	NC		CC		GET		HAVE		CNDT		VED		VC1EN		VC		IRGVEB		CNED		REGVEB		
RESP.	0	1	0	1	0	1	0	1	0	1	0	1	0	1	0	1	0	1	0	1	0	1	TOTAL
	ERR		ERR		ERR		ERR		ERR		ERR		ERR		ERR		ERR		ERR		ERR		
G																							
U 11	0	15	0	15	0	15	0	15	0	15	0	15	0	15	0	15	0	15	0	15	0	15	15
T	ERR																						
S																							
C 10	1	3	2	2	0	4	1	3	0	4	0	4	0	4	0	4	0	4	0	4	0	4	4
A			ERR																				
L																							
9	1	1	1	1	1	1	0	2	0	2	1	1	0	2	0	2	0	2	0	2	0	2	2
				ERR																			
8	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
						ERR																	
7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
									ERR														
6	1	0	0	1	1	0	1	0	1	0	1	0	0	1	0	1	0	1	0	1	0	1	1
											ERR												
5	1	0	0	1	1	0	1	0	1	0	1	0	1	0	0	1	0	1	0	1	0	1	1
													ERR										
4	1	0	1	0	1	0	1	0	1	0	0	1	1	0	1	0	0	1	0	1	0	1	1
															ERR								
3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
																ERR							
2	4	0	4	0	4	0	4	0	4	0	4	0	4	0	4	0	4	0	0	4	0	4	4
																		ERR					
1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
																						ERR	
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
SUMS	9	19	8	20	8	20	8	20	7	21	7	21	6	22	5	23	4	24	0	28	0	28	28
PCTS	32	68	29	71	29	71	29	71	25	75	25	75	21	79	18	82	14	86	0	100	0	100	
ERRORS	0	4	2	3	1	0	1	0	0	0	2	1	1	0	1	0	0	0	0	0	0	0	16

28 CASES WERE PROCESSED
0 (OR 0.0 PCT) WERE MISSING

STATISTICS.

COEFFICIENT OF REPRODUCIBILITY = 0.9481
MINIMUM MARGINAL REPRODUCIBILITY = 0.7987
PERCENT IMPROVEMENT = 0.1494
COEFFICIENT OF SCALABILITY = 0.7419

The Guttman scales and the schematic representation above, have illustrated that the IL continuum is one that is expanding in complexity and one that is developmental.

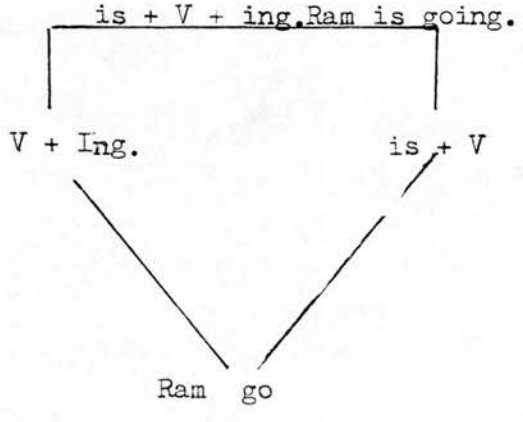
Tense and aspect data again provide some more illustrations of the process of elaboration and complication as learners progress in their learning.

We return to Tables 17 and 18 to examine the error-types and variants for 3rd singular and simple past. In columns 4 and 5 (Table 17) two variants [13] are listed V + ing and is + V. These error-types exemplify sentences like

195. Everyday Ram go school
196. Everyday Ram going to school
197. Everyday Ram is run

These forms are elementary variants of the present progressive is + V + ing. If a build up of the development of the progressive is constructed the process of elaboration is schematically represented below as:

FIGURE 29 Schematic Representation of the Development of the Progressive



(13) Such forms have also been reported by Andersen (1977), Ravem (1974) and Wagner-Gough (1975).

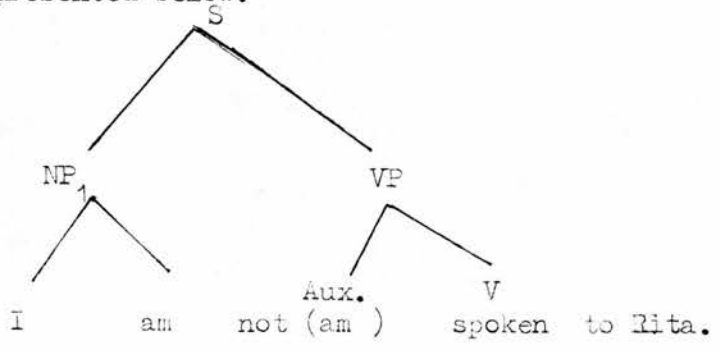
Since there is variability among learners, there are some who begin by inflecting the main verb (go) while leaving out the Aux. Be; there are others who mark the progressive by using the Aux. but leave the MV uninflected. Some learners may use both forms. It is only when Aux+V+ing is combined that the learners have elaborated their progressive system and gone up the scale of complexity in marking aspect (-ing), tense (is/was), number (is/are), and person (am/is).

Semantic categories like agent, object, action, tense, aspect etc. are related to each other in systematic ways. Such relationships are however not transparent to beginners of language learning. In our data from the error correction task on negation, a considerable number of NEM and some E4 respondents 'corrected' the following sentences (items) by inserting 'am'.

198. I am not spoken to Rita

199. He is not found the ring

There are many examples like the above. The conclusion that we draw is: since the learners have not reached a high level of complexity (specifically, they have not reached the scale in p.306 up to the perfective aspect), they mistakenly relate 'am' 'is' to the subject NP 'I' and 'He' respectively. Thus the relationship of the different elements in the sentence is not clear: that the Aux. relates to the main verb and not the subject NP. This is represented below:



Such examples show that going up the scale of complexity in an IL continuum also involves knowledge of the underlying grammatical categories and their relationships.

In the upward progress towards the TL, both formal and semantic complexity are involved. Increasing semantic complexity can be interpreted as the progress from undifferentiation (progressive aspect undifferentiated from simple present or past) to differentiation of meaning. In this interpretation, most NEM learners do not have the full complex semantic system which differentiates between habitual, continuous, non-continuous or perfect actions. It follows that semantic complexity is also the progress from ambiguity to clarity of statement on tense and aspect. For example, a learner who used only an uninflected verb

200. He go

leaves the subtler shades of meaning unclear, since the only information given is the subject 'he' and the action 'go'. If -ing is added, a clue is given that the progressive (action in progress) is intended but we are left with no knowledge whether the action is in the past or present. Addition of an Aux

201. They is going

gives more information - the present is intended, though the learner has not marked for number in the Aux. The above sentence however is less ambiguous in terms of tense and aspect (present progressive).

Thus, any tense and/or aspect category can be analysed for increasing formal and semantic complexity as learners progress up the IL continuum.

7.4.1.B. Negation and Interrogation

In this section, data from the syntactic structures of negation and interrogation will be taken to illustrate the increasing complexity of the IL continuum.

The general : specific distinction in negation is exemplified by the overgeneralisation of some Neg. variants. In other words, some Neg. variants are generally applicable forms in contexts which would require other negators. Table 29A [14] gives the percentages of overgeneralisation as follows:

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(14) The variant 'not' was not quantified. Our subjective impression is that it is also a heavy-duty Neg.operator in early stages.

TABLE 60 Percentages of Overgeneralized Neg. Variants (based on Table 29)

	Do+not	Did+not	Be+not	Never
NEM(K) (4,7,10)	73.0	52.6	123.4	6.95
NEM(H) (7,10)	62.0	27.0	97.0	0.0
EM (7,10)	0.0	0.0	0.0	0.0

The use of one Neg. variant for another indicates the general rules of negation for some learners, e.g. 'use don't to negate sentences'. Notice especially the use of Be + not - this is consistent with what has been found earlier for tense and aspect data, that the pronoun NP ('I', 'He' etc.) influences the use of a Be-Aux (sentences 198-199 above) in perfective aspect, modal, and F-MV sentences

Increasing complexity of the IL continuum may result from increasing degrees of analysis of linguistic knowledge. For example, it has been observed by many researchers that 'don't' is used as a single unanalysed negation at the early stages of development. As semantic complexity increases both in comprehension and production, 'don't' is reanalysed as

Aux. (do) + not

to realise do not (don't), does not (doesn't), did not (didn't).

What has been said of Neg. variants applies to the overgeneralization of 'Do', 'Did', 'Does', 'Be' in Y/N questions and Wh + do, Wh + did, Wh + does, Wh + Be in Wh-questions. Tables 32 and 33 give the figures for overgeneralization of these Auxs. in non-applicable contexts. The high figures (total + 378 of a form of 'Do' as question introducer in Y/N questions and 82-83 in Wh-questions in non-F-MV sentences) show the general productive rule operated by many NEM subjects: use do to formulate an interrogative sentence.

Tables 53A, 53B and 53C which show the sequences of development of negation, Y/N and Wh-questions show the structural poverty of the negative and interrogative structures in Stages 1 and 2 since these stages have neither copulas nor auxs, therefore tense and aspect, number and person are not indicated anywhere in the sentences. Increase in complexity means the gradual acquisition of these forms (Stages 3 onwards). As has been stated before, the acquisition of Do-support in F-MV sentences show progress and the increase in complexity in negative and interrogative structures.

Lastly, the use of declarative sentence word order in interrogative structures also show undifferentiation between the two sentence types with regards to word order. This is in keeping with the belief that a fixed word order is a characteristic of simple codes. It is only at Stage 3 in Table 53B and Stage 4 in Table 53C that the complexity of subject-verb inversion becomes evident to some learners.

Summary

This section has focussed on the IL as one which increases in complexity from a basic semantax. Since it is goal-oriented the increase in complexity is necessary to bring the basic, simple codes of learners to closer approximation with the target language. Many concepts are involved in learning and the notion of increasing complexity; some of these are schematically displayed below and are self-explanatory.

		From		To
1.	Rules	General	⟶	Specific
2.	Semantic and formal categories	Undifferentiation	⟶	Differentiation
3.	Word order	Fixed	⟶	Flexible
4.	Analysis	Unanalysed	⟶	Analysed
5.	Morphology	Absence	⟶	Presence
6.	Auxiliaries	Absence	⟶	Presence
7.	Function words	Absence	⟶	Presence
8.	Markedness	Unmarked	⟶	Marked
9.	Relationship between linguistic elements	Opaque	⟶	Transparent

7.4.2. Placement of Learners on the IL Continuum

This section is related to hypothesis 3b regarding the placement of learners along the developmental continuum. In conducting a cross-sectional study, we hypothesized that the sample population from higher classes are representative of the lower class learners as they progress in learning and move on to higher classes. For example, K10 is representative of K7 and K4 when they will reach class 10; K7 is representative of K4 three years from now. Since there is supposed to be some progress in learning, the higher classes are hypothesized to perform better than the lower classes.

This hypothesis is borne out by the ANOVA results with 'class' as the factor (Tables 11A-D, 21A-B for tense and aspect; Tables 39, 40A-E by negation and interrogation) which show significant differences between the three classes. Secondly, the means of performance scores of each group (Tables 20A-B: tense and aspect; Tables 36: Negation; Tables 37: Interrogation) show better performances by higher classes. A display of the means in Tables 20A-B have been given in Figures 8-15 pp. 155 -158 . The graphs give a visual picture of the positions of the groups.

Groups of learners belonging to the same school and the same class are also positioned individually in the Scheffe' Tables (12A-D, 22A-C: tense and aspect; Tables 42A-D: Negation; Tables 43A-C: Interrogation; Tables 44A-B: Word order according to the matrix of cell means calculated from ANOVA outputs. Since the matrix of cell means have been arranged in increasing order, the position of each group is indicative of relative performances. The positions

in the tables are:

TABLE 61 Positions of the Nine Groups on the Continuum

	1	2	3	4	5	6	7	8	9	
i)	K4	H4	K7	H7	K10	H10	E4	E7	E10	(Tables 12A,C,D)
ii)	K4	H4	K7	K10	H7	H10	E4	E7	E10	(Table 22A)
iii)	H4	K4	H7	K7	K10	H10	E4	E7	E10	(Tables 22B,44A)
iv)	H4	K4	K7	K10	H7	E4	H10	E7	E10	(Table 22C)
v)	H4	K4	K7	H7	E4	H10	E7	E10		(Table 42)
vi)	K4	H7	K7	E4	K10	H10	E7	E10		(Table 43A)
vii)	K4	K7	H7	H10	K10	E4	E7	E10		(Table 44B)
viii)	K4	H7	K7	H10	K10	E4	E7			(Table 42A)
ix)	K4	K7	H7	E4	H10	E7	E10			(Table 43C)
x)	K7	H7	K10	E4	H10	E7	E10			(Table 43B)

In all the above analyses and Tables, there is a consistent pattern in the position of each learner's group on the continuum; the lowest NEM groups (K4 and H4) are always at the lowest level, while E7 and E10 are invariably at the top, while the other groups are in between the lowest and highest point. If each school is taken individually, the pattern is: class 4 at the lowest level, class 7 at an intermediate level, and class 10 at a higher level.

A detailed analysis of the position of each individual learner can be ascertained from the manually constructed implicational scales for negation and interrogation (Tables 52A-D, 53A-B). Again, most of the class 10 subjects and E7 are at the top of the scales in the above tables.

The spread of subjects on the continuum divided into 5 levels at 20% of intervals are seen in the frequency Tables 10, 14 and 19 for tense and aspect, Tables 34A-D for negation, and Tables 35A-I for interrogation and word order. Since some percentages of subjects are always found in each level, the IL is therefore a continuum which ranges from 0 to 100.

7.4.3. Movements Along the IL Continuum as a Function of Tasks Differences

Our last discussion concerns the movement of learners down the scale of complexity of the IL continuum because of task differences. The framework of this assumption is based on the notion that different tasks impose different cognitive, linguistic, temporal and social demands on the learners. Relative success in the tasks will depend on the learners competence on both the analysed and automatic factors (Bialystok, 1982).

The 'difficulty' of a task is based on whether it is a production or recognition/comprehension task. Thus an error correction task will require more from the learner than merely saying that a sentence is right or wrong. Grammatical judgement however is a task which can operate both an implicit as well as explicit knowledge (D'Anglejan, 1982) therefore it is not necessary that one should have an analysed knowledge of forms or structures to be successful in a recognition/comprehension task. Task difficulty is also defined by whether the production is from a given sentence (transformation task) or from the learner's own system (translation task). The latter is more difficult because the learner has to decode the sentence from the mother tongue, and encode its (supposed) equivalent in L2 entirely from his own IL system, which, by definition, is still an imperfect system. Encoding a sentence entails knowledge of the complex syntactic and morphological rules of construction such as insertion, inversion, allomorphic distribution etc. Within Bialystok's framework, the learner must have analysed knowledge of the structure and properties of the L2. We have seen earlier that the learners do not have analysed knowledge of the structure of Y/N and Wh-questions (specifically, the inversion rule in interrogative sentences), nor of the function of Do Does Did and

some other auxs as tense carriers, but rather they are mistaken for interrogative markers. In the error correction task, there is already a ready-made sentence to which the respondents have only to insert an appropriate aux. before the Negative, thus this task is less difficult than the translation task. Task difficulty also depends on whether the production is oral and spontaneous, or written and delayed. Oral spontaneity in tasks like interviews, casual conversations, picture-descriptions etc. requires relative automatic access to linguistic knowledge. The situations are such that they do not allow for monitoring or consultation of the conscious grammar (Krashen's 'Learning' which is the result of formal teaching). Thus the lack of time to encode a correct sentence, the focus on communication rather than on a single form, makes the oral mode more difficult than the written mode. In tense and aspect, the picture description task is the most difficult of the three tasks, since there are fewer learners who scored correctly in this task than in the other tasks. Lastly, task difficulty depends on the feature focus on form vs. focus on communication as another dimension of task variability. Most formal learners in NEM are trained for formal accuracy (but not always successful, as we have seen) in classroom exercises and homework. Whatever communicative competence the NEM learners have is the product of out-of-the-class situations, usually among other IL users. Any task that has the feature "focus on communication" is more demanding for it entails (a) fluency and automatic access (if oral), (b) the ability to encode meaningful sentences and knowledge of syntactic, morphological and discourse rules.

The discussions above and the factors shown to play a part in task variability in previous studies (Krashen, 1981, Bialystok, op.cit) provide the basis for task descriptions in terms of features given below:

Tense and Aspect.

1 Picture Description	2 Fill-in-the-Blanks	3 Multiple-Choice
+Production of an entire sentence	+Production of a required form	+Recognition of a sentence
+Oral/Spoken	+Written	+Written
+Spontaneous	+Delayed	+Delayed
+Focus on communication	+Focus on forms	+Focus on form
+Automatic	-Automatic	-Automatic

Negation and Interrogation.

4 Translation	5 Transformation	6 Error Correction	7 Grammaticality Judgement
+Production of an entire sentence	+Transformation of a given sentence	+Correction of a form	+Recognition of a sentence
+Written	+Written	+Written	+Written
+Delayed	+Delayed	+Delayed	+Delayed
+Focus on communication	+Focus on form and communication	+Focus on form	+Focus on form
-Automatic	-Automatic	-Automatic	-Automatic

7.4.3.A.Tense and Aspect

Analysis of the subjects' performance in different tasks (5.8 and 6.6) has revealed variable performance. ANOVA and Scheffe tests (Tables 21A-B and 22A-F) have confirmed the existence of inequality in the means of scores in the different tasks for each of the areas studied. Using the results of the Scheffe tests on tense and aspect (5.8.5.1) we can say that the levels of difficulty found is as that predicted by the features, i.e. picture description task is the most difficult because of the features oral, spontaneous production with focus on communication. The fill-in-the-blanks task is of average difficulty;

it requires the right inflection of a given verb within a given sentence; the learner must know the various morphological rules to mark tense and/or aspect as well as know the classes of Auxs. that go with the classes of tense/aspect morphemes. On the sentential level, the learner must understand the context given in the sentence in order to provide the right tense/aspect form. Lastly, the multiple choice task is the easiest for the learners because they only had to underline what they considered to be the most appropriate form from a number of options in a given sentence, where the context is again spelled out.

There is some amount of monitoring in the fill-in-the-blanks and multiple-choice task as opposed to the production picture description task which does not favour monitoring. This can be seen in the distributions of subjects in the scattergrams (4 and 5 in Appendix V) where subjects score better in the fill-in-the-blanks task than in the picture description task.

7.4.3.B.Negation and Interrogation

Since no oral test was given, the translation task comes out as the most difficult (overall means: Negation = 79 Interrogation = 77 compared with the mean for the easiest task, i.e. grammaticality judgement (overall means: Negation = 88.2 Interrogation = 78).(5) T-tests show that grammaticality judgement task is always significantly different from the error correction or translation tasks. The relationship between the last two tasks is not as clear cut: they are significantly different in Wh-question, but are not so for negation. It seems that task differences are also conditioned by the structures and categories under study.

The results attest the hypotheses that learners' IL systems are unstable - that learners may appear to have acquired a particular form or structure in one situation, but not in another situation. This is not unexpected, considering that many forms or structures are still being learned. Hypothesis testing by the learners and the possibility of multiple hypotheses show that different variants of the same form or structure may be present at any one point of time, e.g. the existence of no, not, is not, don't,

(5) K4, H4, K10, E10 have not been included in the calculations because they have missing values.

resulting in variable performances. A learner may produce no/ not in spontaneous conversation but use 'is not', 'will not', 'don't' in written composition or a learner may produce an uninflected form of the verb in an oral production task, and a correctly inflected form in a fill-in-the-blanks task. The reasons for variable performances by learners have been discussed in Chapter 2; here the discussions will be restricted to the following observations. Firstly, that variable performances by a particular learner reflects an IL system of variable rules since the L2 language system of a learner is still being formed. Secondly, the fluctuations of the IL system is also conditioned by the nature of the tasks defined by a set of features. Variability is therefore accounted for, i.e. it is not the product of random and chaotic application of rules.

Summary, Conclusion of Chapter 7

This chapter has focussed on the differences between two learning situations - an immersion-type in the EM schools and a second language situation in NEM schools. Differences have been analysed and discussed along two dimensions - quantitative data, and discussions on strategies used, and the acquisition of forms and functions.

Sequences of development for the areas studied have been presented, and an attempt was made to explain the sequences within a semantic-pragmatic framework.

The interlanguage system as a developmental one which increases in complexity has been discussed, with supporting data from the areas studied. The learners' system is also shown to be a system of variable rules which is permeable to the characteristics of the tasks. Lastly, the IL system is shown to be a continuum by the spread of subjects along this continuum from 0 to 100.

CHAPTER 8

Conclusion and Pedagogical Implications

This study has focussed on second language acquisition in North-East India. This study reveals that the process of acquisition is basically the same in both the English medium and non-English medium situations, in that it is a gradual development from a basic semantax, along a continuum which increases in complexity over time. The emergence of the linguistic elements, categories, or structures as reflected in the orders and sequences, is dependent on some universal mental processes. These neuro-lingual processes seem to work on principles which probably include: first, the analysis of meaning and form in the input data. The next possible step would be the mapping together of meaning and form (syntactic and phonological) for comparison (Erwin-Tripp, 1973) and storage. If a linguistic element carries major information value and has high functional load in communication, it is selected for prior storage. The principles of selection and temporary elimination of different linguistic elements, are also specified by neurological constraints on short-term memory for new linguistic material. The prevention of decay of stored elements, i.e. their stability in memory, probably depends on their being used regularly over a period of time in meaningful contexts. These 'high-function' elements form the grid to which less basic elements like Auxs. functors, inflectional morphemes etc. are added over time. Acquisition is not, however, envisaged as merely additive, the process is complex because it involves the recodings of elements, and their restructurings within the IL system when new elements are entered and fresh analysis, mapping and representation must be made. Thus there is constant rule formation and hypothesis testing by the learner. Secondly, not all elements are analysed, and mapped in a form:function pattern; some phrases or even whole sentences can be stored as unanalysed routines and patterns. In naturalistic acquisition such unanalysed chunks would eventually be analysed since they would take up too much storage space in a finite memory. If such chunks persist as unanalysed, they would be limited

in number.

If the speculations on the language acquisition process pursued in this study and summarised above are correct, they would have some implications for language teaching. It has been highlighted that meaning and form interact closely in the primary and subsequent analyses, mappings, selections and storage of linguistic elements.

The implication is that, when language is learned in context, as in the EM situation or naturalistic L1 and L2 acquisition, analysis and relating form and meaning are easy. When forms are taught out of context, i.e. isolated sentence patterns and drills, learning is more difficult because the brain searches for meaning to be mapped to the form. On the other hand, it may not be possible to encode meaning in form because the TL form is not available, either because it is not taught yet, or because it has been under-taught. Both situations exist in the NEM schools because the main input condition is the classroom. This would explain why NEM subjects show less correspondence between form and function in their acquisition of tense and aspect, resulting in the overgeneralization of a grammatical category in wrong contexts. We have shown evidence of the overgeneralized use of the present progressive even by class 10 NEM subjects. Learning in decontextualised situations also partly explains why there are more wrong concepts among the NEM learners, such as the marking of present and past tense in the Auxs. and using Do, Is etc. as general question markers.

Teaching language in meaningful context is an essential principle recognised by present-day exponents of the communicative approach (Brumfit and Johnson, 1979; Widdowson, 1978; Candlin, 1981 and others), the Notional Syllabus (Wilkins, 1976) the Procedural Syllabus (Johnson,1982:135-144) and many of the more specialised syllabuses like English for specific purposes. Any one, or a combination of these syllabuses would be more profitable than the decontextualised sentence practices and memorization of isolated words and sentences (to exemplify a Noun, or a Simple Past tense etc.) followed in most NEM schools in North-East India.

The study has indicated that learning strategies are greatly

influenced by the learning situations. Thus, drilling and pattern practice encourage memorization of unanalysed routines and patterns. The problem with NEM learners is that some of these memorized chunks remain unanalysed. Investigations into learning processes and acquisitional patterns can also help teachers to be cautious about overteaching and drilling of some forms, e.g. the insistence of the different forms of the Be verb. Examples of the students' interpretation of such drills have been shown throughout our analyses and discussions. To recapitulate, the children seem to believe that 'I' must always be followed by 'am', 'he' by 'is' etc. to produce the sentences in pp.254-266. A second example is the insistence on the use of the indefinite article 'a' so that the children of one particular school in this study consistently use 'a', e.g.

I am a not a go now

To remove 'am' and 'a' from the above sentence would not only take longer, and therefore slows the rate of acquisition, but also confuse the students by what looks to be very contradictory to the teacher's initial insistence on these Auxs. and articles. If the students have been guided to use their own discovery procedures, they would have probably produced

I not go now

which will need only a modal insertion to be syntactically acceptable.

Since production strategies depend on what is available, it follows that syllabus should provide the necessary forms or linguistic devices. For example, it may be necessary to explicitly teach the inversion rule (1) in English interrogatives to more advanced students. We have seen in this study that the lack of

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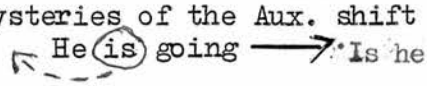
(1) The investigator has attempted the explicit teaching of this rule to class (9) students in one NEM school at one point. No post-test was done because of certain problems. Many students however seemed to show greater understanding of the mysteries of the Aux. shift when visually presented:



The students were also given explicit rules for the Be, modals and Have Auxs., and a separate rule for F-MV sentences requiring Do-support.

knowledge would make learners resort to communicatively useful and innovative strategies which are nonetheless syntactically unacceptable. However, the presentation of the forms, categories and formal devices of the TL should not be premature nor inadequate, because this would again lead to wrong concepts and generalizations. To ensure that learners do not do so, it is also important that constant checks should be made on learners' production strategies. If students regularly produce such negative and interrogative sentences as those in pp. 254-256 there is a danger that wrong rules of sentence formation will be internalised. It is necessary that the teacher should intervene and provide the correct form, formal devices, or Neg. or question operator.

The question of timely presentation and intervention can be related to the orders and sequences observed in this and other studies. There must be some caution however in the application of the orders and sequences to actual syllabus planning and teaching, because the observed orders and sequences cannot be generalized. Thus, though it may be feasible to grade a syllabus to approximate the 'built-in' syllabus for the grammatical categories, e.g.tense and aspect, the same may not hold for syntactic structures like negative and interrogative sentences. For example, it is not necessary nor feasible to start with Stage I negative structures "No + X" when teaching negation in English, but to start at the correct forms with negative internal negation. However, it is necessary that teachers should be familiar with the sequences of development and learning processes uncovered by research so that they do not have unrealistic expectations and demand native-like accuracy at the beginning and intermediate stages of learning. Such expectations like accuracy in the use of auxiliaries, or main verbs correctly inflected for tense, person and number, the use of do-support in F-MV sentences, the use of the inversion rule in questions by early learners - are against the psychological reality of the learning processes. Such expectations may even be detrimental and slow the rate of acquisition. For example, the classroom-induced errors found by Felix (1981) and Stenson (1974) and in this study are unnecessary. It is perhaps

better that students at the pre-inversion stage should use rising intonation to mark Y/N questions, than to produce pseudo-questions like

Did he did not go to school yesterday?

and the questions given in pp. 255- 256.

Insistence on accuracy, especially at the beginners' and intermediate stages could inhibit the learner from using the TL, cause demotivation and fossilization at an early stage, or retardation in the acquisition of communicative use and fluency. The task of the teacher is not easy; nevertheless it is needful to encourage a proper balance between communicative use and fluency, and a movement towards accuracy. Actual communicative use by the learner would give him the opportunity for testing out his hypotheses about the TL; this will also provide the teacher with some feedback about the state of his IL system. On the basis of that feedback, the teacher can decide whether the 'errors' are developmental, or those which can be traced to the L1 or the classroom. It is not clear how each type of error can be dealt with. Some are of the opinion that developmental errors could be gradually erased by providing the correct forms, or by maximising "the student's exposure to natural communication" (Dulay et al, 1982:263), or by providing focussed input. Many agree though that there should be a certain degree of tolerance of these inevitable developmental errors while the learner is gradually building up his system. Classroom-induced errors can be avoided. For example, if unanalysed units like I am, he is, did not are traced to the classroom, then it is in the classroom that they are to be dealt with, possibly along the lines suggested by Harley and Swain (1984) which involves activities which will help reveal the bi-morphemic status of some unanalysed units. It may even be feasible to help explicit analysis by teaching. Stenson (op.cit.) and Felix (op.cit.) are among those who have traced other types of errors to the dialogue-drill patterns in the classroom. It is therefore necessary to check methods of presentation to avoid classroom-induced errors. Lastly, errors which are traceable to the L1, e.g.

He Ram he is a not go

probably require explicit information, not in terms of difficult "rules", but a simple statement that in English a proper name is not preceded by a pronoun. Other Ll-induced errors, however, are not so transparent. Until we are clear about Ll borrowing, there are at the moment not many suggestions regarding Ll-induced errors.

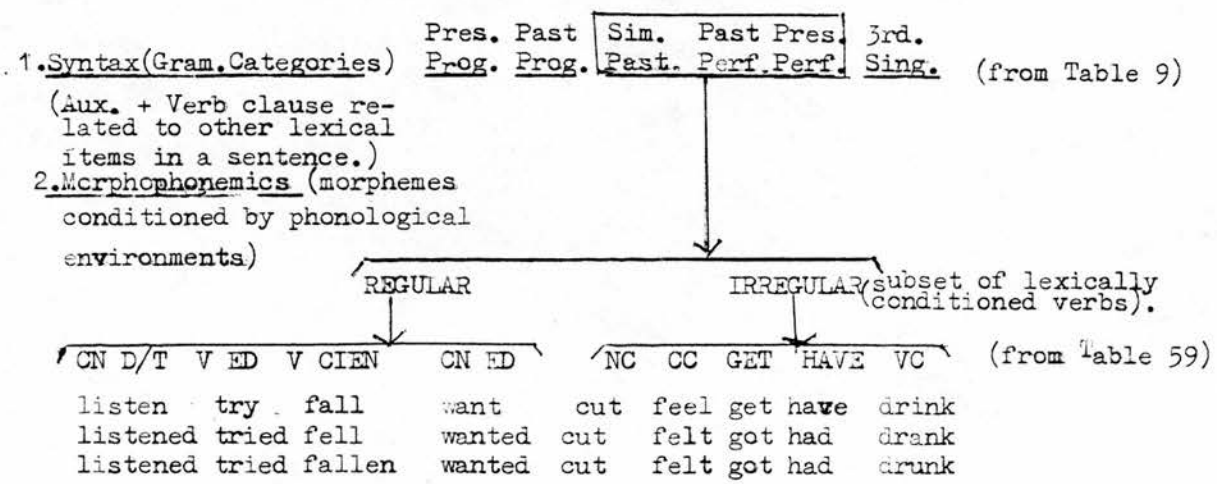
Opportunities for communicative use also give teachers some indication of strategies used by students, both in learning and production. Teachers' awareness of such strategies will help them encourage those strategies which are helpful to learning and communication, and to wean the student away from less desirable strategies, like the mechanical memorization and stringing together of incomprehensible phrases or sentences, the literal, word-by-word translation from the Ll, or a preoccupation with the learning of long words from the dictionary. But whatever method the teacher chooses to use to deal with errors and unproductive strategies, it must be constrained by tact and in accordance with the natural language processing mechanisms, towards a desired goal. This is especially necessary in the NEM schools, where the classroom is the main place for receiving TL input, and the 30-45 minutes a day is the only time for learning the TL. What takes place in that time and place should be meaningful to the students. What is "meaningful" relates to what is simple (therefore comprehensible), what is interesting (therefore motivating), what approximates psycholinguistic processes of acquisition, and what is functionally useful within the framework of the goals of language teaching. If such concepts can be incorporated in the syllabus and teaching, it is hoped that the type of students exemplified by the NEM groups in this study will be given a better chance of learning English.

The results of this study confirm the theoretical position of a developmental continuum. The IL system of a learner is permeable to many factors - the Ll, the TL, the IL of other learners, or a group's version of the TL (e.g. Indian English). It is also influenced by the linguistic situations and the way the input is presented. We have presented evidence which shows that some NEM subjects have different rules for negation and interrogation which probably results from different learning situations. Also, most NEM

subjects interpret the tense and aspect distinctions differently in functional uses.

Because the IL system is permeable to different influences, it is a system of variable rules. Variability in this study has been described as a two-dimensional phenomenon - diachronic variability results from the learning process over time, and synchronic variability results from task differences. Both are describable in terms of linguistic or task environments, thus variability is not random and unexplained. In fact, the learner's language as a systematic progression along a continuum has been revealed by the implicational scales which have well-defined environments. The two implicational scales for tense and aspect, for example, confirm the view that learning is gradual, systematic and describable. Secondly, the scales indicate that IL, like a natural language, is a network of interlocking systems schematically represented as:

FIGURE 30. A Representation of IL as Inter-relating Systems, and the Systematic Nature of Acquisition



Synchronic variability in a learner's variable performance is explained as a function of task differences. These tasks are defined by a set of criteria related to differential accessibility and retrieval conditions. Variable or categorical performances by learners indicate that the IL system is fluid and unstable for the learners at the lower or middle points of the continuum (e.g. most of the NEM learners and class 4 EM), but fairly stable across tasks for those at the higher points of the continuum (EM7 and 10). Thus mental processes are involved in the retrieval and control of linguistic information as much as in the process of analysis, mapping and mental representations discussed at the beginning of this chapter. Since very little is known about these mental processes, it is perhaps time that SLA research incorporate psycholinguistic-types of experiments to discover the essence of language acquisition. Based on observed data, this study has merely pointed a way by specifying certain principles, e.g. the principle of prior selection of functionally useful elements, the principle of constant recoding and schematization of linguistic elements during the learning process, and the principle of mapping form and function.

Appendix i. NUMBER OF ITEMS IN EACH TASK.

TENSE AND ASPECT

Picture Description task 1:10 items each for 3rd. Singular and Simple Past.

Fill in the Blanks task 2 :18 items each for 3rd. Singular,Simple Past,Pres. Prog.,Past Prog.,Pres.Perfect and Past Perfect.

Multiple Choice task 3 :10X 7 = 70 items each for 3rd.Singular and Simple Past.

NEGATION Translationtask 1 :

MODALS	Can	6	
	Will	6	= 18
	Must	6	
DO	DO	6	
	Did	6	= 18
	Does	6	
BE	Am	1	
	Is	2	
	Are	6	=18
	Was	3	
	Were	6	

Error Correction task2: Variant 'Not' 12 ,'Don't' 12 Correct 12 =36

BE BE : 12 DO : 12 HAVE : 12 =36

Transformation of sentences task3:

MODALS 13 , BE 13 DO 12 ,HAVE 12 = 50

INTERROGATION Translation task 1 Y/N Q.MODALS 10, BE 10 ,DO 5, DID 5,DOES 2 =32

Wh.Q :MODALS 6, BE 10, DO 4, DID 4,DOES 2 =26.

Error Correction task 2:Wh.Q: BE 14, DO 12, HAVE 12 = 38

Transformation of sentences task 3:

Y/N Q: MODALS 6 ,BE 6, DO 6, HAVE 6

Wh.Q : MODALS 6 ,BE 6, DO 6, HAVE 6

Appendix ii. RAW DATA

Appendix ii.

TABLE V RAW DATA FOR TENSE AND ASPECT(ALL TASKS).

*Col.	1	2	3	4	5	6	7	8	9	10
1 L4	0	4	0	0	7	0	9	1	5	1
2 L4	0	2	1	0	2	0	4	2	3	0
3 L4	0	3	1	0	1	2	10	1	3	2
4 L4	0	2	0	0	6	3	9	2	1	1
5 L4	0	4	1	0	5	2	10	4	5	2
6 L4	0	3	0	0	5	0	7	0	1	0
7 L4	0	4	0	0	4	2	4	0	2	2
8 L4	0	4	0	0	0	1	9	0	5	1
9 L4	0	1	0	0	3	0	4	0	3	0
10 L4	0	0	0	0	0	0	5	0	2	0
31 L4	2	20	5	0	20	4	10	5	9	4
32 L7	4	7	10	0	5	8	8	1	9	3
33 L7	2	20	3	0	19	10	13	5	13	8
34 L7	0	19	4	3	20	4	13	2	8	3
35 L7	0	20	3	0	20	5	12	2	7	2
36 L7	0	10	5	2	17	6	16	3	11	3
37 L7	2	20	4	2	20	9	13	1	10	3
38 L7	2	7	11	0	5	6	10	2	7	1
39 L7	1	13	3	1	5	3	13	2	15	2
40 L7	0	5	5	1	5	9	15	2	11	2
61 L10	0	20	0	3	19	11	15	7	12	9
62 L10	0	10	3	5	4	14	17	8	17	9
63 L10	0	14	9	3	20	12	16	7	14	11
64 L10	0	16	10	5	20	13	17	8	17	10
65 L10	0	15	2	2	14	10	13	8	15	10
66 L10	2	18	10	2	17	11	14	7	15	9
69 L10	5	17	13	10	19	11	17	8	15	10
68 L10	0	18	1	3	18	14	14	6	13	9
69 L10	5	19	9	4	20	16	14	7	12	11
70 L10	4	7	10	4	15	10	17	10	17	13
11 C4	0	3	0	0	4	0	11	2	7	4
12 C4	0	0	0	0	9	2	11	2	5	3
13 C4	0	1	0	0	0	1	13	2	12	1
14 C4	1	1	0	0	1	1	3	1	2	1
15 C4	0	0	0	0	5	4	12	4	8	4
16 C4	0	0	0	0	0	0	2	0	0	0
17 C4	0	1	0	0	0	2	6	0	7	1
18 C4	0	1	0	0	0	1	1	1	3	0
19 C4	0	0	0	0	0	2	3	1	3	0
20 C4	0	0	0	0	0	3	2	2	2	0
41 C7	5	19	6	5	18	9	10	2	10	4
42 C7	6	18	5	9	14	7	13	3	13	5
43 C7	2	20	3	0	12	6	16	3	16	5
44 C7	0	12	0	0	12	5	6	4	6	3
45 C7	3	15	2	5	16	9	18	9	18	11
46 C7	2	8	3	3	6	6	16	4	17	5
47 C7	2	18	3	8	14	9	15	5	9	4
48 C7	5	20	5	5	17	10	18	7	14	6
49 C7	4	19	3	3	15	17	18	14	17	12
50 C7	2	14	2	3	8	3	14	2	12	3
71 C10	18	20	18	20	8	18	18	18	18	18
72 C10	18	20	16	17	6	15	17	15	16	17
73 C10	11	20	11	13	18	17	17	15	18	17
74 C10	2	20	3	3	14	11	16	7	11	7
75 C10	13	20	15	16	0	16	18	15	18	17
76 C10	12	20	6	6	20	15	18	17	18	16
77 C10	3	20	2	5	18	15	16	14	17	14
78 C10	1	18	1	8	17	9	11	4	12	5
79 C10	2	19	0	8	15	8	13	4	15	6
80 C10	1	20	18	3	16	9	17	11	14	11
21 S4	13	19	11	15	20	15	18	13	18	14
22 S4	15	20	15	17	18	7	18	12	17	14
23 S4	12	19	13	14	9	14	18	12	18	13
24 S4	12	15	12	12	2	13	16	11	16	10
25 S4	11	19	5	13	19	12	14	11	14	10
26 S4	7	20	10	12	20	12	18	12	18	9
27 S4	16	18	11	17	20	12	18	13	17	10
28 S4	11	20	11	17	3	15	18	10	17	15
29 S4	11	19	13	15	20	15	18	11	16	11
30 S4	12	20	8	14	19	12	18	10	16	14
51 S7	20	20	16	20	20	18	18	18	18	18
52 S7	20	19	15	20	19	17	18	16	17	16
53 S7	19	20	16	20	20	18	17	16	18	16
54 S7	20	20	17	13	20	17	18	18	18	17
55 S7	20	20	15	20	20	18	18	18	17	18
56 S7	10	20	18	13	18	18	18	18	18	18
57 S7	20	20	18	13	20	18	18	18	18	18
58 S7	12	20	15	15	19	18	18	18	18	18
59 S7	19	20	18	10	20	18	18	18	18	18
60 S7	20	20	12	18	19	18	18	16	17	14
81 S10	20	20	18	20	20	18	18	18	18	18
82 S10	20	20	18	20	20	18	18	18	18	18
83 S10	20	20	18	20	20	18	18	18	18	18
84 S10	20	20	18	20	20	18	18	18	18	18
85 S10	20	20	18	20	20	18	18	18	18	18
86 S10	20	20	18	20	20	18	18	18	18	18
87 S10	20	20	18	20	20	18	18	18	18	18
88 S10	20	20	18	20	20	18	18	18	18	18
89 S10	20	20	18	20	20	18	18	18	18	18
90 S10	20	20	18	20	20	18	18	18	18	18

*Column 1 is the data for 3rd.Singular Picture Description task number 1.
2 is the data for 3rd.Singular Multiple Choice task number 3.
3 is the data for 3rd.Singular Fill in the Blanks task-number 2.
4 is the data for Simple Past Picture Description task number 1.
5 is the data for Simple Past Multiple Choice task number 3.
6 is the data for Simple Past Fill in the Blanks task number 2.
7 is the data for Present Progressive Fill in the Blanks task.
8 is the data for Present Perfect Fill in the Blanks task
9 is the data for Past Progressive Fill in the Blanks task.
10 is the data for Past Perfective Fill in the Blanks task.

L4,L7 and L10 are NSM(K) groups
C4,C7 and C10 are NSM(H) groups
S4,S7 and S10 are N SM groups.

Appendix ij.RAW DATA

Appendix II Table V RAW DATA FOR INTERROGATION AND NEGATION.

Col.1	2	3	4	5	6	7	8	9	1o	11	12	13	14	15	16	17	1	2	3	4	5	o	7	8	9	1o	11	12	13	14	15	16	17
1	1	1	1	-9	-9	3	7	0	-9	4	2	2	6	0	2	16	5	1	2	2	32	30	20	30	28	28	36	-9	-9	25	15	18	38
1	1	1	1	-9	-9	8	8	1	-9	12	12	6	4	2	5	14	5	1	2	2	30	12	13	12	10	22	14	-9	-9	19	11	11	32
1	1	1	1	-9	-9	7	3	0	-9	16	8	2	5	5	5	13	5	1	2	2	25	16	10	24	31	4	34	-9	-9	32	16	13	48
1	1	1	1	-9	-9	1	4	2	-9	18	0	0	4	5	4	16	5	1	2	2	26	26	32	12	17	20	26	-9	-9	37	18	17	36
1	1	1	1	-9	-9	9	9	10	-9	28	10	10	4	1	2	16	5	1	2	2	32	24	29	22	21	10	26	-9	-9	20	16	15	38
1	1	1	1	-9	-9	5	4	5	-9	18	4	4	3	2	1	14	6	2	3	2	42	42	44	46	39	40	40	-9	-9	46	17	17	40
1	1	1	1	-9	-9	8	7	1	-9	12	12	10	5	4	5	14	6	2	3	2	42	42	45	40	30	38	38	-9	-9	45	17	19	40
1	1	1	1	-9	-9	4	4	0	-9	14	4	8	4	0	0	24	6	2	3	2	42	42	45	42	32	40	40	-9	-9	46	12	13	40
1	1	1	1	-9	-9	-9	-9	0	-9	8	2	4	-9	0	0	20	6	2	3	2	42	42	46	46	31	40	40	-9	-9	46	15	12	38
1	1	1	1	-9	-9	-9	-9	0	-9	20	0	0	-9	0	0	16	6	2	3	2	42	42	42	38	34	38	40	-9	-9	46	19	9	38
2	1	2	1	-9	-9	-9	-9	0	-9	18	-9	-9	-9	0	0	11	6	2	3	2	42	42	44	46	40	34	40	-9	-9	46	19	20	38
2	1	2	1	-9	-9	-9	-9	0	-9	18	-9	-9	-9	0	0	16	6	2	3	2	42	42	44	46	28	36	34	-9	-9	45	15	12	40
2	1	2	1	-9	-9	-9	-9	0	-9	4	-9	-9	-9	0	0	12	6	2	3	2	42	42	44	44	37	40	40	-9	-9	44	20	20	40
2	1	2	1	-9	-9	-9	-9	0	-9	2	-9	-9	-9	0	0	16	6	2	3	2	42	42	46	46	38	40	40	-9	-9	46	17	14	40
2	1	2	1	-9	-9	-9	-9	0	-9	2	-9	-9	-9	0	0	12	6	2	3	2	42	42	46	40	35	38	40	-9	-9	46	18	15	40
2	1	2	1	-9	-9	-9	-9	0	-9	2	-9	-9	-9	0	0	16	7	1	1	3	25	28	16	10	-9	-9	-9	30	30	27	-9	-9	-9
2	1	2	1	-9	-9	-9	-9	0	-9	4	-9	-9	-9	0	0	14	7	1	1	3	33	36	42	42	-9	-9	-9	45	39	30	-9	-9	-9
2	1	2	1	-9	-9	-9	-9	0	-9	1	-9	-9	-9	0	0	10	7	1	1	3	30	26	38	34	-9	-9	-9	29	46	34	-9	-9	-9
2	1	2	1	-9	-9	-9	-9	0	-9	4	-9	-9	-9	0	0	14	7	1	1	3	36	32	36	34	-9	-9	-9	34	41	38	-9	-9	-9
2	1	2	1	-9	-9	-9	-9	0	-9	2	-9	-9	-9	0	0	18	7	1	1	3	41	40	39	36	-9	-9	-9	46	47	36	-9	-9	-9
3	2	3	1	31	38	31	36	28	34	34	46	48	44	18	13	38	7	1	1	3	34	26	36	28	-9	-9	-9	34	30	36	-9	-9	-9
3	2	3	3	42	34	23	36	34	32	34	50	50	46	13	20	38	7	1	1	3	37	28	32	28	-9	-9	-9	38	40	40	-9	-9	-9
3	2	3	1	29	31	38	36	28	16	32	42	40	44	17	10	38	7	1	1	3	30	32	28	36	-9	-9	-9	37	33	31	-9	-9	-9
3	2	3	1	15	34	25	20	24	14	38	36	50	42	13	10	18	7	1	1	3	33	32	37	38	-9	-9	-9	37	32	23	-9	-9	-9
3	2	3	1	34	42	28	26	30	26	20	48	46	46	16	12	20	7	1	1	3	26	14	24	6	-9	-9	-9	21	40	24	-9	-9	-9
3	2	3	1	40	42	36	39	32	26	30	48	48	46	16	13	34	8	1	2	3	36	28	41	30	39	34	40	42	45	27	18	20	28
3	2	3	1	38	42	33	30	33	40	40	50	50	46	16	14	40	8	1	2	3	37	24	39	26	29	12	17	39	43	30	17	11	34
3	2	3	1	36	42	39	39	34	20	30	50	50	44	14	15	38	8	1	2	3	35	30	34	26	38	19	20	39	46	28	20	20	40
3	2	3	1	36	42	38	36	34	24	30	48	50	46	15	12	34	8	1	2	3	39	26	41	32	28	26	34	48	48	28	16	15	40
3	2	3	1	29	31	39	26	28	22	32	45	50	42	12	12	34	8	1	2	3	34	32	40	22	27	24	32	40	45	30	14	16	40
4	1	1	2	24	18	18	20	14	7	14	42	4	26	8	7	32	8	1	2	3	32	26	37	30	37	32	40	44	44	26	15	18	40
4	1	1	2	27	26	22	20	10	5	18	30	30	27	12	10	32	8	1	2	3	36	34	40	34	39	34	40	46	44	21	18	20	40
4	1	1	2	23	22	21	14	14	16	28	30	30	33	10	10	36	8	1	2	3	27	32	31	22	36	14	34	33	24	21	16	12	40
4	1	1	2	30	14	28	21	21	10	30	34	22	27	10	8	19	8	1	2	3	34	39	36	24	30	24	34	44	44	23	16	14	40
4	1	1	2	20	16	26	14	20	14	28	36	6	31	10	8	38	8	1	2	3	38	36	34	18	23	26	32	35	39	26	17	12	40
4	1	1	2	34	20	31	16	22	3	12	26	22	36	11	11	22	9	2	3	3	42	42	46	46	40	40	40	-9	-9	-9	20	20	40
4	1	1	2	20	24	20	23	19	4	32	24	6	32	10	9	40	9	2	3	3	42	42	46	46	40	40	40	-9	-9	-9	20	20	40
4	1	1	2	23	12	19	8	14	2	16	30	29	26	11	8	16	9	2	3	3	42	42	46	46	40	40	40	-9	-9	-9	20	20	40
4	1	1	2	31	20	20	2	15	4	22	37	14	22	8	7	36	9	2	3	3	42	42	46	46	39	38	40	-9	-9	-9	20	20	40
4	1	1	2	26	24	24	14	15	10	26	45	8	22	14	10	16	9	2	3	3	42	42	46	46	40	40	40	-9	-9	-9	20	20	40
5	1	2	2	32	18	25	28	23	6	34	-9	-9	26	7	8	28	9	2	3	3	42	42	46	46	38	40	40	-9	-9	-9	20	20	40
5	1	2	2	23	14	18	22	27	22	34	-9	-9	23	12	13	38	9	2	3	3	42	42	46	46	38	38	38	-9	-9	-9	20	20	40
5	1	2	2	32	18	15	18	12	14	20	-9	-9	24	12	11	36	9	2	3	3	42	42	46	46	38	36	38	-9	-9	-9	20	20	40
5	1	2	2	22	6	21	10	-9	-9	-9	-9	-9	21	15	9	32	9	2	3	3	42	42	46	46	40	40	40	-9	-9	-9	20	20	40
5	1	2	2	28	12	24	30	26	22	36	-9	-9	26	12	10	36	9	2	3	3	42	42	46	46	40	40	40	-9	-9	-9	20	20	40

Column 1 is the code number for subjects:1 for K4,2 for H4,3 for E4,4 for K7,5 for H7,o for E7
7 for K1o,8 for H1o,9 for E1o.
2 is the code number for medium:1 for MEM,2 for EM.
3 is the code number for syllabus:1 for Structural + Grammar Translation,2 for Structural +audio-Lingual,3 for Direct Method(DM).
4 is the code number for Class: 1 for class 4,2 for class 7,3 for class 1o.
5 is the data for Wh.Interrogation translation task.
66is the data forwword order in wh.interrogation translation task.
7 is the data for Y/N interrogation translation task.
8 is the data for word order in Y/N interrogation translation task.
9 is the data for Wh.interrogation error correction task.
1o is the data for word order in wh. interrogation error correction task.
11 is the data for wh.interrogation grammaticality judgement task.
12 is the data for wh.interrogation transformation task.
13 is the data for Y/N interrogation transformation task.
14 is the data for Negation translation task.
15 is the data for negation error correction of the variant'not'.
16 is the data for negation error correction of the variant'don't '.
17 is the data for negation grammaticality judgement task.

-9 stands for missing value,i.e.,those who did not do the tasks.

Appendix SAMPLE DATA FROM TWO LEARNERS IN THE ORAL PRODUCTION TASK FOR 3RD. SINGULAR AND SIMPLE PAST.

Each sentence in columns 1 and 3 begins with' Everyday Ram...' to elicit 3 rd.Singular present tense.

Each sentence in columns 2 and 4 begins with 'Last Monday Ram...' to elicit Simple Past.

Col. 1	2	3	4
is get up from the bed X	had got up from the bed	is getting up from bed	was getting up from bed
is brushing his teeth	had brushing his teeth X	is brushing his teeth	" brushing his teeth
is washing his face	was washing his f.	" washing his face	" washing his face
is taking his breakfast	had eating his breakfast X	" drinking his tea	" drinking his tea
is reading his book	had reading his b. X	"reading	" reading his book
is eating his eh eating	had eating X	" eating	" eating
is going to school	had going to school X	" going to school	" going to school
is doing his excercise	had taking his exercise	" skipping	" skipping
is in the clrm.	had going to school X	" reading	" learning
is writing a letter	was writing wrote a lett.	"writing a letter	" writing a letter
is eating channa	had eating channa X	" eating going to picnic	" going for picnic
is reading a book	had reading his book	" reading	is reading
is in the bus	is in the bus	" going by bus	is going by bus
is running	running	"running	is running
is playing football	had playing football X	" kicking ball	is playing football
is open the door X	opened the door	" openimg the door	is opening door Oh Don was opening the door.
is listening to radio	had listen the radio X	" listening to the radio	listened to the guitar
is playing guitar	had playing a guitar X	" playing guitar	played the guitar
is praying	had prayed	" praying	prayed
is going to bed	had going to bed. X	" sleeping	sleep slept.

Appendix iii. Sample Data.

Appendix iii. SAMPLE DATA — NUMS UII Negative sentences

S_2 6 They [are] did not wanted book
7 They [are] not felt (well) (DON'T)
8 They [are] did not come to me because I [am] alone go (They didn't come with me therefore I went alone)
15 They are not rong for him
They are not sleeping
Children [are] [did] not reading his time
You [are] did not won't go to Guwahati (MUSTN'T)
I [am] did not take his book
I [am] did not meet for yesterday
S_5 16 I am not go alone (WON'T)
15. They are not rong to the...
When I [am] come then he is not eating (When I came --)
20 When I [am] left house he is not sleeping
The boy [is] did not fall that
You [are] not go to the...
I [am] don't ask the Principal (MUSTN'T)
He [is] did not go to the house
He [is] did not go tbe the rosen(?)
He [is] not walk (can't)
He is not sitting
34 I [will] did not study (WON'T) → ① I will (did not) study ✓ (however, sec S_2 24)
NOT
② I [will] did not study (S_5 16 S_7 16, 23) 24
36 11. I [am] did not give it
20 When I [am] left the house, he was not sleeping
21 The boy [was] did not fall down
26 I [am] did not asked the Principal (MUSTN'T)
27 I [am] did not eat my food
28 I [am] did not feeling cold (I don't -- or I'm not feeling)
42 He [did] not captain for this class (ISN'T)
37 8 He [is] not go my friend that is why I [am] go alone (didn't)
11. I [am] book did not garry (I didn't carry --)
12 I [am] her did not meet (I " meet --)
20 When I left a house he [was] did not sleeping
15 He is not do rong (didn't) NOT(?)
16 I [am] not go alone (WON'T)
18 When I [am] came there he is not eating
20 When I [am] left house he is not sleeping
21 Boy [is] did not fall down
22 He [is] not brought rong book
23 I [am] not go school (I WON'T)
25 I [am] not sit place (I can't)
26 I [am] not say class teacher anything (MUSTN'T)
27 I [am] not eat anything
28 Boy [is] not go house
30 He [is] don't want to go Rani (Mustn't go with R)
31. He [is] not look for her (didn't --)
32. He [is] not walking (can't --)
33. He si— is not sitting house (didn't)
34 He [is] with me not go... (" ")
35 I [am] not study this time
39 I [am] not study (WON'T)
I [am] not brought book house (I didn't..)
43 He not don homework
46 I [am] not go to you (I WON'T)

Appendix iii. Sample Data.

Appendix iii. Sample Data QUESTIONS

Does he is still eating her food when you came here?

Do he isn't go to school today?

What I'll say for the Headmaster? (what shall/will ---)

(20) ~~Does~~ he is still sleeping when you reach there yesterday? (Was he ---- ?)

(21) Does your friend are with you now? (Are ---- ?)

(17) Does Tom's house far from here? (Is --- ?)

(14) Does yourhouse is far from here? (Is --- ?)

(41) When does the boy fallen last week? (where did --- ?)

(25) Did the boy gone to his house? (Has --- ? Did --- ?)

(30) Why can't you go with Rani?

(33) Why he is still sit in ~~cal~~ class?

(36) Why you are not study?

(43) Why did he don't do his homework? (why didn't ---)

(3) You have come to school yesterday?

(13) Does the children is reading book now? (Are ---)

(15) When did you have wrote the book? (When have ... When did --)

(10) Is Tom's house is far from here? (Is ---)

(40) She have eat rice at the time you came here? (Was ---)

(22) Does your friends is with you now? (Are ----)

(28) Do you like to eat rosgulla, isn't?

(30) Why do you couldn't go with Rani? (why couldn't ---)

(35) Why don't I can't go with you? (Why can't ---)

(41) Why did I cannot go with you? (Why " ---)

(26) Did he sleeping when you reached there yesterday? (Was ---)

(34) When did you'll go to Guahar~~bi~~? (When will -- ?)

(25) Do you can to reserve place for me? (Can you -- ?)

(19) Did your friends are here with you now? (Are --- ?)

(24) When will you can go to G.? (When will --- ?)

(36) Why did you can go with Rani? (Why can't --- ?)

(31) Is he gone yet? (Has he --- ?)

(38) Why did he is still sitting in class? (Why is --- ?)

(43) Why did he doesn't do the homework? (Why doesn't --)

(27) May you have booking for me? (Can you -- ?)

(24) Why did he is not eat rice in the morning? (Why doesn't ... ?)

(23) Why is that why does Antony eat rice and curry?

5 Why did you did not eat fruit yesterday? (Why didn't -- ?)

6 Why did he is not take the rice this morning? (Why doesn't -- ?)

7 Why did he did not eat rice in morning? (Why didn't -- ?)

6 Where did they have taking the children? (Where have -- ?)

7 Where are they taken book today? (" " -- ?)

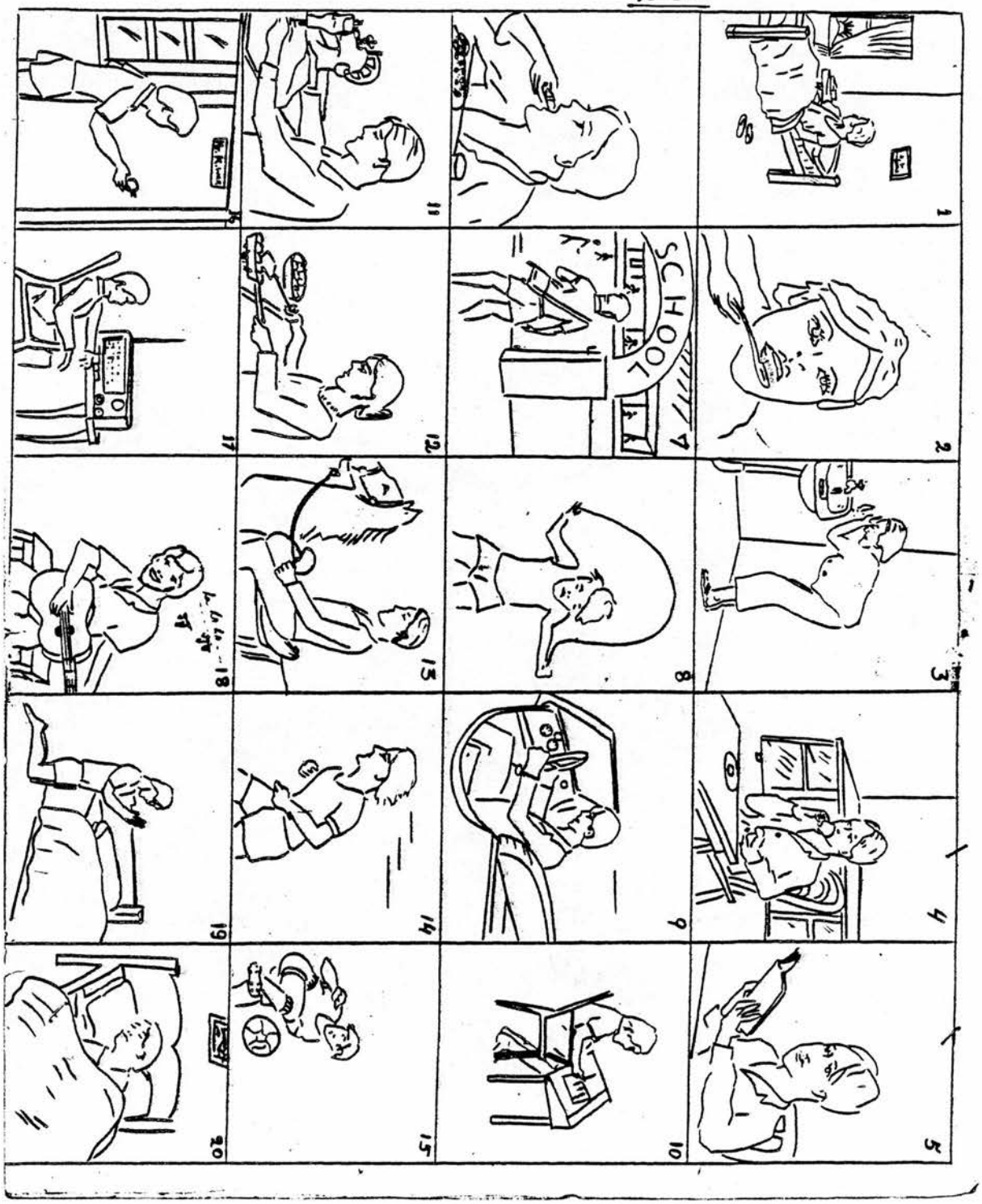
15 Why did she is not go to M? (Why didn't ... ?)

5 Why did you did not eat fruit yesterday? (Why " ... ?)

25 Why did Khawbar didn't go to the shop to buy the shoes? (" " -- ?)

Appendix iV. TASK.

Appendix iv. Reduced copy of the Picture Description task.



Appendix iV.TASK.

JOSEPH KALRINGALOVA
CLASS. IV SEC B.

Tense and Aspect

Sample answer sheet

Task 2.Fill in the Blanks.
(FB).

Instructions:Fill in the blank with the correct form of the Verb given on the left side of the sheet.Look out for words like'Last week' 'Yesterday' 'Today'etc,and also for words like'is''has' 'was''had'etc these will help you decide whether you should use the present or the Past form of the Verb,and whether ther the Verb needs'-ing' or,'-en' attached to it.Other verbs in the sentence will help you decide the Tense of the Verb to be filled,Also pay attention ton the Subject,ie, if it is Singular or Plural,First,Secind or Third Person.
Check,and correct again if you had made a mistake.Remember: Fill in the blanks with the correct form of the Verb which agree in Tense, Number,and Person with the other words in the sentence.

VERBS:

I.SHOUT 1.That boy is shouting ✓ too much;he must keep quite.
2.Yesterday Ram shouted ✓ during class so he was punished.
3.He always shout ✗ when he can't get what he wants.
4.Ram had shouted ✓ more than any other boy in the room.
5.He was shouting ✓ very loudly when the Headmaster came .
6.Why do they shout ✓ in the classroom?
7.It was not Tom who has shouted ✓ ,it was Ram.
8.You must not shout ✓ ,other people will hear you.

II.WAIT: 1.Yesterday I was waiting ✓ for you when I saw Mrs Lal.
2.We had waited ✓ for hmm long enough,and we must go now.
3Where did Sita and Meeta wait ✓ for Rashan?
4.Everyday Rajan waits ✓ for his sister after school.
5.They have waited ✓ a long time to see this film.
6.Last Monday they waited ✓ one hour to see the Prime Minister.
7.You should not wait ✓ for the bus here,you should go to the bus-stop.
8.We are waiting ✓ for the driver who's gone to buy cigarettes.

III.Listen 1.Everyday Ravi listens ✓ to the radio .in the common-room.
2.Don has listened ✓ to the radio programme,but he doesn't like it.
3.Last night he listened ✓ to a new song sung by Lata.
4.Don't disturb Bhaiti now,he is listening ✓ to the news.
5.He will not listen ✓ to anyone else but his father.
6.She was listening ✓ to a song but her brother wanted to hear the news.
7.Why do you listen ✓ to the same song everyday?
8.They had listened ✓ to the song,but they didn't learn it.

Appendix iV.TASK.

Tense and Aspect.Task 2.(FB).cont.

IV Move. 1.When will they move their boxes from this place?
2.The coolie has moved the boxes to another place.
3.The dog will not move unless his master tells him to do so.
4.They were moving to a new house,but it was not ready yet.
5.Veera had moved the big chair,but her husband brought it back.
6.We are moving from this place because it is too hot.
7.The cat always moves around the house very silently.
8.Last week the refugees moved to a new place.

V Try. 1.Lakshmi will not try to come here alone.
2.He tried hot chicken curry but he didn't like it.
3.They have tried to find the lost ring in the school.
4.When will they try to look for it again?
5.Rita was trying the dress but her sister told her to take it off.
6.Lakhon is trying his best to win the first prize.
7.Bhonti always tries to please her parents in everyway.
8.WE had tried to make Sheila sing but she refused.

VI.Carry. 1.See how Bok is carrying his books;he'll drop them all if he's not careful.
2.Which of these packets would you carry for me?
3.The men have carried the big boxes,so the women will take the small ones.
4.Tahpa had carried the big box on his head.
5.Sita was carrying some books when she tripped and fell.
6.Yesterday the man carried Ravi home because he was very ill.
7.Mona cannot carry all those books by herself.
8.Sunita always carried her own tiffin to school.

VII.Laugh. 1.You must not laugh at the poor boy because He's mad.
2.Why do the men laugh so loudly?
3.Lila had laughed so much whan she heard the joke.
4.Yesterday we heard that they laughed during his class.
5.Dharam is laughing but his sister doesn't enjoy the joke.
6.He always laughs whenever someone tells him a good joke.
7.They have laughed together because they both know that it is a joke.
8.WE were laughing very loudly,then we remembered that we should be quiet.

V111.Pass. 1.Don is happy because he has passed the test.
2.You won't pass unless you study.
3.He had passed the test,but he didn't come for the interview.
4.Everyday he passes by the Poast-Office when he goes to school.
5.When will he pass his matriculation exams?
6.They are passing by the post- Office just now.
7.Mohon passed B.U. in 1980 grom St.Anthony's College.
8.He was passing near my house so I called him in for a cup of.

Appendix iV TASK.

TASK 2(FB).

XIV. Fight.

1. He was a soldier who fought in the last war.
2. You must not fight with a little boy.
3. The two boys are fighting because they both want the big ball.
4. Why do they fight so much? they should be good friends.
5. Arjun was fighting in the streets so his parents had to call him.
6. Tiger has fought with almost all the dogs in this neighbourhood.
7. The soldiers had fought bravely for the sake of the country.
8. This dog always fights like a tiger when he's angry.

XV. Hurt.

1. He has hurt himself durming the game, so he has to go to the hospital.
2. You are hating the poor animal if you are so rough.
3. It always hurts her so much when she has to leave her family.
4. Raman had hurted his sister's feelings when he didn't give her a birthday present.
5. I fell down, but I was not hurt at all.
6. Last Tuesday he hurted himself when he was playing football.
7. The sun was so bright, so my eyes were hurt so much that I had to get my sun-glasses.
8. Why should anyone hurt such a good man?

XVI. CUT.

1. Last night she cut the material to make a dress.
2. My mother usually cuts the roses, but sometimes I cut them.
3. Lonna is cutting the potatoes to make the curry.
4. Please don't cut that beautiful flower.
5. He was cutting the chicken when the Sadhu came in.
6. It's too late now; she has already cut the dress into pieces.
7. Mary had cut the carrots, but she forgot to use them.
8. Why do you cut the grass yourself? Don't you have a mali?

XVII. GET.

1. Ram is getting some help from people because he's poor.
2. The two boys had got into trouble with the police before.
3. He is a senior teacher so he got 500 rupees a month.
4. When will we get the results of yesterday's test?
5. Reena was getting some help but the girl who fainted/had recovered.
6. We have got many problems but we'll try to solve them.
7. Ravi will not get angry if you tell him the truth.
8. Last manth Kumar got the news about his mother's illness.

XVIII. Have.

1. When can Bokstar have his sweater back?
2. They were having fun playing football but it started to rain.
3. Ratna will not have any jelebi because it is too sweet.
4. Ranu is having some rice, but she'll not take curry.
5. Bulbul has a good voice but she doesn't sing very much.
6. Last week the children had a good time at the party.
7. She's crying because she has just had an injection.
8. She had have an operation last year, but she'll need to have another one.

Appendix iV.TASK

Tense and aspect. Task 2.(FB).cont.

IX.BREAK 1.Yesterday he broke the wooden box with a hammer.
2.You can't trust her,because she usually breaks her promises.
3.You must stop that boy,he is breaking all the flowers.
4.Will theold chair break if he puts that heavy box on it?
5.He has broken the beautiful pot I bought from Delhi.
6.When had the child broken the window?
7.Yesterday they were breaking the window when the chowkidar saw them.
8.Be careful,you must not break the glass door.

X.FALL. 1.He had fallen into a lake,but luckily ther's not much water in it.
2.Borbah will not fall because he's an expert climber.
3.Will Hana fall if she tries to climb the ladder?
4.Last Monday she fell on the slippery floor and was hurt.
5.Sometimes the baby falls down from the bed.
6.Look!that rotten tree is falling,we must warn the people.
7.There is such a strong wind,some trees have already fallen
8.The boy was falling but his friend caught hold of him.

XI.Drink.1.Rosie drank only milk because she doesn't like tea or coffee.
2.The visitors are all drinking tea in the sitting room.
3.What have you drunk ? you look sick.
4.Why do you drink so much?It's not good for you.
5.Last night the baby drank all the milk in the bottle.
6.He was drinking tea when his friend came in.
7.She had drunk enough tea so she is quite satisfied now.
8.You should not drink water from the tap without boiling it first.

XII.Begin.1.We have begun the evening slasses since JUne this year.
2.She is beginning her tuition today.
3.The men began the work a month ago.
4.Don't begin the knitting until I get some new wool.
5.Everday class begins at nine A.M.
6.They were beginning to feel tired of playing outside .
7.She had begun the work,but had to stop for some reason.
8.When will you begin the revision for the exams.?

XIII.Feel.1.Manju always feels sorry for beggers but she can't helpthem.
2.Susan is feeling better nowthat her mmother is here.
3.He had felt the pain,but kept silent.
4.Why should you feel sorry for yourself?
5.We must not feel that we are without any help.
6.Munoo was feeling like a fool in the party when he came so late.
7.They have felt bad about it,but ther is no other way.
8.We felt tired yesterday because we walked so much.

TENSE AND ASPECT. Task3 (Multiple-Choice).

NAME _____ SCHOOL. _____ AGE 10 Mother tongue Bengali

Instructions: Underline only one verb or verb phrase (helping verb and main verb out of the seven or nine options given in brackets which agree in tense, number and person with the preceding words, 'EVERYDAY', 'LAST MONDAY'. Remember you must underline only one of the verbs.

****

1. Everyday Ram (get up)(is getting up)(gets up)(Got up)(was getting up)(has got up)(had got up).
2. Everyday Ram(brush)(is brushing)(brushes)(brushed)(was brushing)(has brushed)(had brushed)
3. Everyday Ram(wash)(is washing)(washes)(washed)(was washing)(has washed)(had washed).
4. Everyday Ram (drink)(is drinking)(drinks)(drinked)(was drinking)(drank)(drunk)(has drunk)(had drunk).
5. Everyday Ram(study)(is studying)(studies)(studied)(was studying)(has studied)(had studied).
6. Everyday Ram(eat)(is eating)(eats)(eated)(ate)(was eating)(has eaten)(had eaten) his food.
7. Everyday Ram(go)(is going)(goes)(goed)(went)(was going)(has gone)(had gone) to school.
8. Everyday Ram(play)(is playing)(plays)(played)(was playing)(has played)(had played)in school.
9. Everyday Ram(drive)(is driving)(drives)(drived)(drove)(was driving)(has driven)(had driven) a car.
10. Everyday Ram (write)is writing)(writes)(writed)(wrote)(was writing)(has written)(had written) something.
11. Everyday Ram (sew)(is sewing)(sews)(sewed)(was sewing)(has sewed)Had sewed) his shirt.
12. Everyday Ram (cook)(is cooking)(cooks)(cooked)(has cooked)(had cooked) his ffod.
13. Everyday Ram(ride)(is riding)(rides)(rided)(rode)(was riding)(has riden) a horse.
14. Everyday Ram(run)(is running)(runs)(runned)(ran)(has run)(had run)
15. Everyday Ram (kick)(is kicking)(kicks)(kicked)(was kicking)(has kicked)(had kicked)the ball.
16. Everyday Ram(open)(is opening)(opens)(opened)(was opening)(has opened)(had opened)the door.
17. Everyday Ram (listen)(is listening)(listens)(was listening)(has listened) had listened to the Radio
18. Everyday Ram(sing)(is singing)(sings)(singed)(sang)(has sung)(had sung) a song.
19. Everyday Ram(pray)(is praying)(prays)(prayed)(was praying)(has prayed)
20. Everyday Ram (sleep)(is sleeping)(sleeps)(slept)(was sleeping)(has slept)(had slept)
21. Last Monday Ram (get up)(is getting up)(gets up)(got up)(was getting up)(has got up)(had got up)
22. Last Monday Ram(brush)(is brushing)(brushes)(brushed)(was brushing)(has brushed)(had brushed his teeth.
23. Last Monday Ram(wash)(is wahing)(washes)(washed)(was washing)(has washed)(had washed) his face.
24. Last Monday Ram(drink)(is drinking)(drinks)(drinked)(drank)(has drunk)(has drunk) tea.
25.

Appendix iV. TASK

Tense and Aspect. Task 3. (cont.)

25. Last Monday Ram (study)(is studying)(studies)(studied)(was)studying) (has studied)(had studied).

26. Last Monday Ram(eat)(is eating)(eats)(ate)(was eating)(has eaten) (had eaten) his food.

27. Last Monday Ram(go)(is going)(goes)(went)(was going)(has gone)(had gone) to school.

28. Last Monday Ram (play)(is playing)(plays)(was playing)(has played) (had played) in school.

29. Last Monday Ram (drive)(is driving)(drives)(was driving)(drove)(has driven)(had driven) a car.

30. Last Monday Ram(write)(is writing)(writes)(writed)(wrote)(has writen) (had written) something.

31. Last Monday Ram (sew)(is sewing)(sews)(sewed)(was sewing)(has sewed)(had sewed) his shirt.

32. Last Monday Ram (cook)(is cooking)(cooks)(cooked)(was cooking)(has cooked cooked) his food)

33. Last Monday Ram (ride)(is riding)(rides)(rode)(rided)(was riding) (has riden)(had riden) a horse)

34. Last Monday Ram (run)(is running)(ran)(runned)(runs)(runned)(ran)(was-running)(has run)(had run)

35. Last Monday Ram (kick)(is kicking)(kicked)(was kicking)(has kicked) (had kicked) a ball.

36. Last Monday Ram (open)(is opening)(opens)(opened)(was opening)(has opened) (had opened) the door.

37. Last Monday Ram (listen)(is listening)(listens)(was listening)(has listened)(had listened) to the Radio.

38. Last Monday Ram (sing)(is singing)(sings)(was singing)(has sung) (had sung) a song.

39. Last Monday Ram(pray)(is praying)(prayed)(prays)(prayed)(was praying) has prayed)(had prayed).

40. Last Monday Ram(sleep)(is sleeping)(sleeps)(sleeped)(slept) was sleeping)(has slept)(had slept)

Appendix IV. TASK.

NEGATION. TASK I.) (TRANSLATION from Hindi)

TRANSLATION TEST I.

1. मैं नहीं जा सकता — I can not go.
2. मैं चाय नहीं पियुंगा — I wont drink tea.
3. मुझे चावल नहीं खाने — I wont eat rice.
4. उन्हें चाय नहीं पीनी — They wont drink tea.
5. हम नहीं आ सकते — We can't come.
6. तुम और रवी नहीं गाओगे — You and Ravi didn't sang.
7. तुम और राम नहीं जा सकते — You and Ravi can't go.
8. तुम्हें और सीता को नहीं जाना — You and sita didn't go.
9. आवाज़ मत — Don't make noise.
10. तुम और टॉम चाय नहीं पसन्द करते — You and Tom didn't like tea.
11. वह चाय नहीं मांगती — She didn't want tea.
12. मैं विद्यार्थी नहीं हूँ — I am not a student.
13. रवी अच्छा लड़का नहीं है — Ravi is not a good boy.
14. पिछले साल वह होशियार लड़का नहीं था — Last year he was not a intelligent boy.
15. डान और बॉब को चाय नहीं चाहिये — Don and Bob didn't want tea.
16. वह कल वहाँ नहीं गया — Yesterday he didn't go there.
17. हमें चावल नहीं खाने चाहिये — We didn't eat rice.
18. वे चाय नहीं पीयेंगे — They didn't drink tea.
19. हम चाय नहीं पीयेंगे — We didn't drink tea.
20. तुम नहीं जा सकते — You didn't go.
21. मुन्नू ने कल किताब नहीं पढ़ी — Munu didn't read book yesterday
22. टॉम हर रोज नहीं पढ़ता — Tom didn't read everyday.
23. तुम्हें चाय पसन्द नहीं — You didn't like tea.
24. अब राम और अरुण स्कूल में नहीं है - Now Ram and Arunn not school student
25. अब तुम और उन कमरे में नहीं हो — Now You and Don not in the room.
26. कल सीता और रीता कक्षा में नहीं थी - Yesterday Rita and Sita not in the classroom.
27. उसे अब चाय नहीं चाहीये — He didn't want tea now.
28. (तुम और टॉम) मत जाओ — (You and Tom) don't go.
29. वे अब चाय नहीं चाहते — They didn't want tea now.
30. वह अब यहाँ नहीं रहता — He didn't stay here.
31. उन्होंने कल मुझे नहीं देखा — Yesterday they didn't see me.
32. राम अब हर रोज स्कूल नहीं जाता — Ram now didn't go school everyday.
33. कल मैं और राम अच्छे लड़के नहीं थे — Yesterday I and Ram are not
34. वह कल नहीं जायेगा — He didn't go tomorrow.
35. उसे गाना नहीं है — He didn't sang.
36. पिछले साल मैं होशियार लड़का नहीं था — Last year I was not intelligent boy.
37. सीता और अब यहाँ नहीं रहती — Now sita didn't stay here.
38. कल आंधी नहीं आयी

Appendix IV TASK.

NEGATION. TASK I. TRANSLATION (Cont.)

VII – A

Roll. 11

COND

TRANSLATION I

39. अब वह कप्तान नहीं है Now he was not a captain.

40. पिछले साल वे स्कूल छात्र नहीं थे Last year they were not school students.

41. अब मैं और सीता कक्षा में नहीं हैं Now I and Sita don't in class.

42. कल तुम और राम कमरे में नहीं थे Yesterday you and Ram were not in the room.

43. तुम नहीं जाओगे You don't go.

44. वे अब विद्यार्थी नहीं हैं Now they are not students.

45. अब तुम अच्छे लड़के नहीं हो Now you are not a good boys.

46. कल मैं और सीता कमरे में नहीं थे Yesterday I and Sita don't in the room.

47. वह कल स्कूल नहीं आई Yesterday she didn't come in school.

48. वह नहीं आ सकता He don't come.

49. तुम चिल्लाओ नहीं You do not cry.

50. हम शैतान लड़के नहीं हैं We are not Naughty Boys.

51. कल तुम कक्षा में नहीं थे Yesterday you were not in the class room.

52. मानो और गीता कल नहीं आए Yesterday Mano and Mamta didn't come.

53. वे नहीं जा सकते They can't go.

54. पिछले साल राम कप्तान नहीं था Last year Ram was not a captain.

Appendix IV. TASK

NEGATION. Task 1. (Translation from Khasi).

NEGATIVES. TRANSLATION TEST.

NAME Nelida Wahlang. AGE. 16. CLASS 10 Mother tongue Khasi

1. Ngam lah ban leit	1. I cannot go
2. Ngan Ym dih sha.	2. I wont drink tea
3. Ngam dei ban bam ja.	3. I am not eating rice
4. Kim dei ban dih sha.	4. They do not drink tea
5. Ngim lah ban wan.	5 We could not came
6. Phi bad u Ravi phin ym rwai. (sing)	6. you and Ravi would not sing
1. Ngam lah ban leit.	1.(n) I cannot go
2. Ngam ym dih sha	2.(n) I wont drink tea
3. Ngam dei ban bam ja (take food)	3.(n) I am not take food
4. Kim dei ban dih sha.	4.(n). They dont drink tea
5. Ngim lah ban wan.	5. (n) we could not come.
6. Phi bad u Ravi phin ym rwai.	6. (n) you and Ravi would not sing
7. Ma phi bad U Ram phim lah ban leit.	7 (n) you and Ram cannot go
8. Ma phi bad ka Rita phim dei ban leit.	8.(n) you and Rita would not go
9. Wat kylla (jam) (shout)	9.(n) Do not shout.
10. Phi bad U Tom phim (like) ongeudymnad ia ka sha.	10.(n) you and Tom you would like Tea.
11. Kam kuch sha mynta.	11.(n) She do not like Tea now
12. Mynta ngam dei u khynnah skul. (student)	12.(n) Now I am not a student
13. Mynta U Ravi um long u khynnah uba bha.	13.(n) Now Ravi was not a good boy.
14. Nyshem-snem um dei u khynnah uba stad. (last year) (clever)	14.(n) Last year he would not a clever boy.

Appendix IV. TASK.

NEGATION. (TASK 1. TRANSLATION)

16. Mynhynnin u khlem leit shatai. 16. yesterday he do not go there.

17. Ngim dei ban bam ja mynta. 17. We are not Take rice

18. Kin ym dihsha lashai 18. They would not take Tea tommarow.

19. Ngin ym bamja lashai 19. we would not take rice tommorow

20. Phim lah ban leit. 20. you would not go

21. Mynhynnin U Muno u khlem pule ia ka koy Yesterday 21. yesterday Muno did not study the book

22. U Tom um pule man ka sngi. 22. Tom did not study everyday.

23. Phim bang ia ka sha ? 23. you do not like Tea. you would not taste

24. U Ram bad U Tom kim dei ki khynnah skul mynta. 24 Ram and Tom They are not a good Student

25. Mynta phi bad U Don phim don ha kamra 25. Now you and Don you were not here in a room.

26. Mynnin (yesterday) ka Sita bad ka Rita kim/don ha slem la class. 26. yesterday Sita and Rita They were not at school.

27. Mynta um kwah sha . 27 Now he do not want tea.

28. Phi bad u Tom wat leit. 28. you and Tom do not go.

29. Mynta kim kwah sha. 29 Now They do not want tea

30. Mynta um shong hangne. 30. Now he did not Stay here

31. Mynhynnin ki khlem iohi ia nga. 31. yesterday They did not see me.

32. U Ram um leit skul man ka sngi. 32. Ram did not go to school everyday.

33. Mynhynnin nga bad U Ram ngim shem la long ki khynnah kiba bha. 33. yesterday I and Ram we would not a good boys.

34. Un ym leit lashai . 34. He would not go tomorrow

35. Um dei ban rwai. 35. He would not Sing.

36. Mynshem snem ngam shem la long ka khynnah kaba stad. (last year) 36. last year I was a clever girl.

37. Ka Sita kam shem shong shuh hangne 37. Sita did not Stay here come in this school.

Appendix IV. TASK

NEGATION. TASK I. (TRANSLATION from Khasi).

38. Myn-hynnin U Bhaiti u khlem mareh.	38. yesterday Bhaiti did not run
39. Mynta um dei u captain.	39. Now he is not a captain
40. Myn shem snem (last year) phim shem dei ki khynnah skul.	40. Last year They are not a student.
41. Mynta nga bad ka Sita ngim don ha class.	41. Now I and Sita we are not in Class.
42. Mynhynnin phi bad U Ram phim shem la don ha class.	42. yesterday you and Ram was not in the room.
43. Phim ym leit lasnai.	43 you would not tomorrow
44. Mynta kim dei shuh ki khynnah skul.	44. Now we are not a student
45. Mynta phim long u khynnah ubo bha.	45 Now you are not a good girl
46. Myn hynnin nga bad ka Sita ngim shem la don ha class.	46 yesterday I and Sita we are not in the class
47. Ka khlem wan skul hynnin.	47. She not came to school yesterday
48. Um lah wan.	48. He cannot came.
49. Phim dei ban hylla (shout)	49. you must not shout.
50. Ngim dei ki khynnah dakaid (naughty)	50. We are not a naughty children.
51. Mynhynnin phim shem la don ha class.	51. yesterday you were not in classroom.
52. Mynhynnin U Manu bad U Bhaiti ki khlem wan shane.	52. yesterday Manu and Bhaiti They were not there.
53. Kim lah ban leit.	53. they can not go
54. U Ram um shem dei u captain myshem-snem.	54. Ram was not a captain last year.

Appendix IV. TASK.

NEGATION. TASK 2.

ERROR RECOGNITION AND CORRECTION TEST (1)

Instructions: Read the following sentences carefully. If you that a sentence is right, put a tick(✓) at the end of the sentence. If it is wrong, write the correct sentence just below the wrong sentence.
You must NOT change the underlined main verbs(eg. write, cooking, taken etc) that is, if a verb is given as 'writing' or 'written', Do NOT change it to 'write'. Forms written as 'isn't' 'haven't' etc are accepted, bot you can write te as 'is Not' 'have not' if you want.

2 ✓ They don't go ing to the Bazar today (X) ✓
They are not going Bazar today

2 ✓ 2. They not running in the race (X)
They are not running in the race. ✓

0 X 3. Everyday Manu don't go by bus. (✓) X

1 X 4. Markos doesn't always study in the library (X)
markos donot always study in the library XX

2 ✓ 5. Last night Ravi don't find the ring find (X)
last night ravi didnot found the ring ✓

0 X 6. He not looking for the pen (X)
He donot looking for the pen ✓

0 X 7. They not taken their food yet (X)
They are not taken their food yet X

2 ✓ 8. Last night Sita not write the letter. (X)
last night sita did not write the letter ✓

2 ✓ 9. He isn't walking alone, Ram is with him. (✓) ✓

1 X 10. I doesn't read the papers everyday. (X) ✓
I didnot read the papers every day.

0 X 11. He don't been to Calcutta yet (✓) X

2 ✓ 12. Last night they weren't/to going see the films (✓) ✓

13. Everyday Asha doesn't go in the car. (X)
X Everyday Asha donot go in the car.

0 X 14. I not spoken to Rita though I met her twice last year. (X)
I donot spoken to Rita thought I met her twice last year

2 ✓ 15. Yesterday the chowkidar didn't open the gates. (✓) ✓

0 X 16. He don't singing because he's got a cold (✓) X

0 17. They are not playing football today. (X)
X They are will not playing football today XX

2 ✓ 18. Last month I hadn't thought that I would need the book. (✓) ✓
last month

0 X 19. He don't found the ring so we're still searching. (X) ✓
we are not found the ring so we are still searchin

2 ✓ 20. He hasn't bought the book you want. (✓) ✓
He

0 X 21. Yesterday my mother don't cooking when I left the house. (X)
yesterday my mother do can't cooking when I left the house

2 ✓ 22. Yesterday he don't taken even a glass of milk. (X)
yesterday he hasn't nadn't so taken even a glass of milk ✓

0 X 23. Raja not wash his hair every sunday. (✓) X

1 24. Last night Dilip not lock the door. (X) ✓
Last night Dilip not always lock the door

25. The boy hadn't drunk anything stronger than coffee. (✓) ✓

Appendix IVTASK.

3

26. They not brush their teeth everyday. (x)
They are not brush their teeth every day.

27. Till now Rita not begun her reading yet. (x).
Till now and Rita not begun when reading yet.

28. Yesterday he not fighting, but he was taken by the police. (x)
Yesterday he do not fighting, but he was taken by the police

29. Last night they not reading when their father came in. (x)
Last night they are do not reading when their father came in.

30. I haven't seen such a beautiful flower before (✓)

31. Last week they don't writing anything (x)
Last week they did not writing any thing.

32. Monti hasn't shouted, but his teacher is angry. (x).
Monti did not shouted but his teacher is angry

33. Last Monday I wasn't going anywhere, then Rita asked me to go with her. (✓)

34. They haven't taken their books, with them. (✓)

35. They don't see films though I want to. (✓)
They didn't see films though I was't do

36. Yesterday he wasn't drinking at the party. (✓)

INTERROGATION. TASK 2. ERROR CORRECTION.

QUESTIONS.

		Aux	G	W.O.
1: why he work so late last night?	(x)	do not	✓	x
2. Where she live nowadays ?	(x).	is	✓	✓
3. Where Ailin going today?	(x).	is	✓	✓
4. Why Raju not walk faster ?	(x)	do	✓	x
5. Where they live now ?.	(✓)	x	x	x
6. Where he taken the chair ?.	(x)	were	✓	x
7. Why aren't they singing now ?	(✓).	✓	✓	✓
8. Last night why they not eating ?	(x)	are	✓	x
9. When they coming to Shillong.?	(x)	are	✓	x
10. Why his wife not coming with him ?	(✓)	x	x	x
11. Why they not staying here ?	(x)	are	✓	x
12. When is he going to Lawan ?	(x)	✓	x	x

23 = 34

Appendix IV TASK

INTERROGATION. TASK 2.(ERROR CORRECTION).

Questions(contd)

14. Yesterday where he going when you met him.? (✓)
yesterday where he was going when you met him?

15. Why he not given the book even now ? (✗).
why he was not given the book even now?

16. Where had he kept the papers last month? (✓)
where have he kept

17. Why does Anjana read that book now ? (✓)

18. Yesterday why she not readingwhen she had time ? (✗)
yesterday why she was not reading when she had time.

19. Why were they singing together yesterday? (✓)

20. Why wasn't he singing with them ? (✓)

21. Who hasn't gone to school today ? (✓)

22. Yesterday why you not go ? (✗)
yesterday why you do not go.

23. Why hadn't I thought about it ?. (✗)
why have not I thought about it.

24. Why don't you like sweets ? (✓)

25. Why isn't he going? (✓)

26. Last week where you been ? ? (✗)
had

27. Last week why you not taken me with you ? (✗)
had not

28. Why did you go away last night? (✓)

29. Who they staying with last year? (✗).
who they are staying last year.

30. Where have you carried the box ? (✓)

31. Why you brought the flowers? (✓).

32. Why you not show me your dress now ? (✗)
why you do not show me your dress now?

33. Where are they going just now ? (✗)
where are they going just now.

34. Why do you look for it here? (✓)

35. Why didn't he sing last night ? (✓)

36. where has he gone? (✓)

37. Why you not written the letter ? (✗)
why you are not written the letter.

38. Why doesn't he study in the library ? (✓)

Appendix IV TASK

NEGATION.TASK 3.(TRANSFORMATION OF SENTENCES). 50

Instructions:1. Read these sentences carefully.2.Pay attention to the verb,the subject whether it is singular or plural,2nd or 3rd person (he,she,it, they or a name).3.Change the sentences to negatives.All changes must be with reference to the tense of the verb.

KHASI: 1.Pule bniah ia ki sentens.2. peit bha ia ka tense, ka subject la ka kaba tang kawei ne shibun, bad la ka dei ha ka 2nd ne 3rd person. 3.Pynkylla ia ki sentence sha ka negative.i.e.lane kum ka nuksa :=

Nuksa (Example):
Ngan leit== Ngan ym leit lane ngam leit.
Un wan=======Un ym wan lane um wan.
(pynkylla negative)

1 They want to go.	1. They do not want to go.
2. They went to school yesterday.	2. They did not go to school yesterday.
3 He is running.	3. He is not running.
4 You are going home.	4. you are not going home.
5Ram was going very fast.	5. Ram was not going very fast.
6. He has gone home.	6. He had not gone home.
7 They have played football.	7. They have not played football.
8 He had shouted in the class.	8. He had not shouted in the class.
9 Rita likes tea.	9. Rita does not like tea.
10 YOU like football.	10. you do not like football.
11 Don is going now.	11. Don is not going now.
12. He wants to go.	12. He does not want to go.
13. They had seen it.	13. They have not seen it.
14. You have studied here.	14. you have not studied here.
15. She was laughing.	15. she was not laughing.
16. Sita has taken my book.	16. sita had not taken my book.
17. They are playing.	17. They are not playing.
18. Yesterday he sang a song.	18. yesterday he did not sing a song.
19. Don can go home.	19. Don cannot go home.
20. He will walk.	20. He will not walk.
21. She can sing now.	21. she cannot sing now.
Ravi must go.	22. Ravi must not go.

Appendix IV. TASK.

4. She must come here.	24. She must not come here.
5. You went there yesterday.	25. You did not go there yesterday.
6. She is cooking rice.	26. She is not cooking rice.
7. You are looking at the cat.	27. You are not looking at the cat.
8. He has gone home.	28. He has not gone home.
29. Don likes tea.	29. Don does not like tea.
30. They had played football.	30. They had not played football.
31. They live in Shillong.	31. They do not live in shillong.
32. They have eaten rice.	32. They have not eaten rice.
33. He wanted a book yesterday.	33. He did not want a book yesterday.
34. They are going to Tura.	34. They are not going to Tura.
35. Ram is doing his work.	35. Ram is not doing his work.
36. She was walking with a friend.	36. She was not walking with a friend.
37. Ravi has taken it.	37. Ravi had not taken it.
38. You have written it.	38. You have not written it.
39. He had looked at the picture.	39. He had not looked at the picture.
40. He wants to go.	40. He does not want to go.
41. You like biscuits.	41. You do not like biscuits.
42. John was getting a book.	42. John was not getting a book.
43. Don can go now.	43. Don cannot go now.
44. He will run again.	44. He will not run again.
45. He can jump.	45. He cannot jump.
46. Dilip must work at home.	46. Dilip must not work at home.
47. Leela will cry.	47. Leela will not cry.
48. She must run.	48 She must not run.
49. I will sing.	49 I will not sing.
50. I will study.	50. I will not study.

Please write your name etc below.

NAME.	AGE.	MOTHER TONGUE.
M. Padma NILAYA	15	Telugu.

Appendix IV TASK.

18

INTERROGATION. (TASK 1. TRASLATION FROM HINDI).

TRANSLATION TEST 2

31. क्या तुम कल आये थे ? Did you came yesterday?
32. क्या वे रोज स्कूल जाते हैं ? Did they go school daily?
33. क्या वे कल अच्छे लड़के थे ? Did they were good boys yesterday?
34. क्या वह जायेगा ? ~~What he is going?~~ Is he going?
35. उन्हें क्यों गाना है ? ~~Why they should sing?~~ W.O
36. क्या मैं होशियार अच्छा था ? ~~Was I~~ was a intelligent boy?
37. तुम्हारा नाम क्या है ? What is your name?
38. तुम्हारी सालगिरह कब है ? What is your birthday?
39. वह कप्तान क्यों है ? Why he is captain? W.O
40. क्या तुम पिछले साल स्कूल के छात्र थे ? ~~What you were~~ were you a student of the school last year?
41. वे कहाँ हैं ? Where are they now?
42. क्या तुम कमरे में हो ? ~~What you are in the room~~ are you in the room?
43. तुम कब जाओगे ? When you are going? W.O.
44. क्या वह विद्यार्थी थे ? ~~What he was a~~ student? Was he a student?
45. क्या रवी अच्छा लड़का है ? ~~What~~ is Ravi is a good boy?
46. तुम कहाँ रहते हो ? Where do you ~~live~~ lived?
47. वह कल यहाँ क्यों आए थे ? Why do they came here yesterday?
48. वह अब आ सकता है ? ~~can~~ he can come now? W.O.
49. तुम्हें क्यों चिल्लाना जरूरी है ? Why it is necessary to shout for you?
50. वह अच्छा लड़का क्यों था ? Why he was a good boy? W.O
51. तुम्हें सबसे ज्यादा क्या पसन्द है ? What do you like very much?
52. तुम कल कब आए थे ? When did you came yesterday?
53. तुम्हारी कक्षा हर रोज किस समय लगती है ? ~~In what time~~ At what time is your class starts daily?
54. वह तुम्हारा कप्तान कब है ? When you are captain? W.O.
55. हम तुम्हें कब देखेंगे ? When we can see you? W.O
56. वह कहाँ रहता है ? Where did he lived?
57. क्या मैं तुम्हें कल देखा था ? Did I was you yesterday?
58. उसे क्या चाहिये ? What do he want?
59. वह स्कूल किस समय आता है ? When did he came from school?
60. मैं इतना थका हुआ क्यों हूँ ? Why I am so tired? W.O.

1. क्या मैं जा सकता हूँ ? Can I go. / May I go!
2. क्या मैं चाय पीऊँ ? Can I drink tea or May I drink tea.
3. क्या मुझे चावल खाने जरूरी है ? What the rice is necessary for me?
4. क्या उन्हें चाय पीनी जरूरी है ? What tea is necessary for them?
5. हम कब आ सकते है ? When we may come?
6. क्या तुम और रवी गाओगे ? What you and Ravi will sing?
7. क्या तुम और राम जा सकते हो ? ~~What~~ you and Ram are going?
8. तुम कहाँ जा रहे हो ? Where are you going?
9. क्या तुम्हे चाय पसन्द है ? Do you likes tea?
10. क्या तुम और टाम चाय पसन्द करते हो ? ~~What~~ you and Tom doesn't like tea?
11. रीटा चाय क्यों माँगती है ? ~~Rita~~ Why Rita is asking for the tea?
12. क्या मैं विद्यार्थी नहीं ? ~~What~~ I am not a student?
13. वह क्या कर रही है ? What she is doing?
14. क्या वह पिछले साल होशियार लड़का था ? ~~What~~ he was intelligent child last year?
15. उन्हें चाय कब चाहिये ? When they want tea?
16. क्या वह कल वहाँ गया था ? ~~What~~ he went their yesterday?
17. क्या हम अवश्य चावल खाएँ ? ~~What~~ ~~rice~~ is necessary for us?
18. क्या वे चाय पीएँगे ? they will drink tea?
19. वे कब आ रहे है ? When they are coming?
20. क्या ~~कब~~ तुम जा सकते हो ? What can you go?
21. क्या कल उन्होंने पुस्तक पढ़ी थी ? Do they read the book yesterday?
22. क्या टोनी रोज पढ़ता है ? Does Tony reads daily?
23. हम क्यों जाना चाहते है ? Why should we ego?
24. क्या वे स्कूल छात्र है ? Are they school student?
25. तुम कहाँ हो ? Where are you?
26. क्या वे कल कक्षा में थे ? they are in the classroom yesterday?
27. तुम कब जाना चाहते हो ? When you want to go?
28. क्या उसे चाय पसन्द है ? Does he likes tea?
29. तुम्हारी पुस्तक किधर है ? Where is your book?
30. वह इस पुस्तक को क्यों पढ़ता है ? Why he is reading this book.

INTERROGATION. TASK I. (TRANSLATION FROM HINDI).

N = SURAJ K. THAPA.
CL = Σ A Roll No-19
S = K.V. Happy-valley.

APppendix IV. TASK

Class 4

name: [illegible] AGE: 14. CLASS: 10 Khasi

INTERROGATION. TASK I. (TRANSLATION FROM KHASI) (Your answer this side)

1. Nga lah ban leit ?.	1	Can I go ?
2. Ngan dihshaj ne em?	2.	Shall I take tea?
3. Nga dei ban bam jaj ne em ?	3.	Must I take tea?
4. Ki dei ban dihsha ne em ?	4	Must they take tea?
5. Lano ngi lah ban wan ?	5	When we can come?
6. Phi bad U Ravi phin rwai ne em?	6.	you will you & Ravi will drag ?
7. Phi bad U Ram phi lah ne em ban leit?	7.	you will Ram and you will go?
8. Phi dang leit shano ?	(8)	Where are you going?
9. Phi sngewtynnad (like) ia ka sha?	(9)	did you like the tea?
10. Phi bad U Tom phi sngewtynnad ia ka sha?	10.	did you and Tom like the tea ?
11. Balei ka Rita ka [illegible] Shai ?	11.	why does Rita want tea?
12. Hato ngam dei u khynnah skul?.	12.	(no) I am not a student
13. U dangleh aiu mynta?	13.	what is he doing now?
14. U dei seh mo u khynnah uba study mynshem snem [illegible] (last year)	14.	is he really a [illegible] boy last year?
15. Lano phi kwah [illegible] (want) sha ?	15.	when do you want tea ?
16. U la leit seh mo myn-hynnin shatai?.	16	did he [illegible] yesterday ?
17. Ngi dei seh mo ban bam ja ?	17.	shall we [illegible] ?
18. Kin dih sha seh mo ?	18.	shall they take tea?
19. Lano kin wan (coming)	19.	when will they [illegible] ?
20. Phi lah ne em ban leit ?	20.	can you go ?
21. Ki pule ne em ia ka kot myn-hynnin?.	21.	did they read [illegible] yesterday ?
22. U Tom u pule kot (study) ne em man ka sngi ?	22.	did Tom study [illegible] ?
23. Phi kwah leit noh mynta ?	23.	did you [illegible] go now?
24. Ki dei ne em ki khynnah skul mynta?	24.	are they (were) students
25. Haugno phi don mynta ?	25.	where are you now ?
26. Ki don ne em h- class hynnin ?	26.	did [illegible] tea ?

Appendix IV TASK

"2"

27.U bang sha(tea) ne em ? 27. Does he like tea or not?

28.Lano phi kwah ban leit ? 28. When do you want to go?

29.Shano ka kot jong phi mynta ?.29. Where is your book now?

30.Balei u pule ia ka tai ka kot ?.30. Why does he read that book

31.Phi/wan ne em myn-hynnin ? 31. did you come yesterday?

32.Ki leit skul man ka sngi ? 32. didn't they go to school yesterday

33.Ki dei ne em ki khynnah kiba bha33. did they were a good myn-hynnin ? boys yesterday

34.Un leit ne em la shai ? 34. will he go tomorrow?

35.Balei ki dei ban rwai ? 35. Why do they have to go?

36. Nga dei ne em i khynnah rit(child) 36. I am a clever child?
iba stad ?.

37.Kaei ka kyrteng jong phi ? 37. what is your name

38.Lano ka dei ka sngi kha(bithday) 38 when is your birthday
jong phi ?. will be?

39.Balei u long captain ? 39. why he is a captain

40.Phi dei u khynnah skul(student) 41. are you a student
myn shem snem(last year) last year?

42.Phi don ha kamra class ne em mynta ?.42. are you in a class
room now?

43.Lano phin leit ? 43. when you leave?

44.U dei ne em ukhynnah skul mynta ?. 44. Is he a student now?

45.U Ravi u dei ne em u khynnah uba bha mynta ? 45. Is Ravi a good boy now?

46. Hangno phi shong(live)? 46. Where do you stay?

47.Myn-hynnin ka khlem wan skul ? 47. yes did she come to school yesterday?

48.Lano u lah ban wan ? 48. when he will go?

49.Balei phi dei ban hylla(shout)? 49. why you do shouting?

50.Balei u long u khynnah uba bha ? 50. why he is a good boy?

51.Phi sngew tynnad ah ka/ei(like most) 51. what do you like most?
kaei ?

52.Mynno phi wan myn-hynnin ? 52 when do you go yesterday?

Appendix IV TASK.

INTERROGATION. TASK3. (TRANSFORMATION OF SENTENCES).

Name — Kusida ... Age 16 ... Mother Tongue Khasi

Instructions.

1. Read the sentences carefully. 2. Pay attention to the tense of the verb, b) the subject noun or pronoun, whether it is singular or plural, 2nd(you)or 3rd.person(he, she, it they, or a name. 3 change the sentences into questions. 4. From sentence no. 25 to 48, you will find some word in brackets (somewhere), something), (sometime). We have started these sentences for you, but you will have to complete them,. Therefore sentences 25 to 48 should always begin with the words where, what or when. 5. You must not start sentences 1 to 24 with where, what and when. 6. write your sentence next ~~to~~ the given sentence.

(change into questions)	(write your answer or sentence in this col.)
1. They want to go.	1. ~~She~~ are ~~to~~ they want to go
2. They went to school yesterday.	2. yesterday they went to school
3. He is running.	3. Is he running ?
4. You are going home.	4. Are you going home ?
5. Ram was walking very fast.	5. Was Ram walking very fast ?
6. He has gone home	6. Has he gone home ?
7. They have played football.	7. Did they have played football ?
8. He had shouted in class.	8. Did he had shouted in class ?
9. Rita likes tea.	9. What Rita likes tea ?
10. You like football.	10. Do you like football ?
11. Don is going now.	11. Is Don going now ?
12. He wants to go.	12. Do he wants to go ?
13. They had seen it.	13. Had they seen it ?
14. You have studied here.	14. Was he Did you have studied here ?
15. He was laughing.	15. Was he laughing ?
16. Sita has taken my book.	16. Has Sita taken my book ?
17. They are playing.	17. Are they playing ?
18. Yesterday he sang a song.	18. ~~He~~ Sang yesterday a song ?
19. Don can go home.	19. Can Don go home ?
20. He will walk.	20. Will he walk ?

Appendix IV. TASK.

INTERROGATION, TASK 3. (TRANSFORMATION OF SENTENCES).

Ravi must go.	22. Must Ravi go ?
Mary will run.	23. Will mary run ?
She must come here.	24. must she come here ?
You went(somewhere) yesterday.	25. Where did you go yesterday ?
She is cooking(something).	26. What did she are cooking ?
You are looking at (something)	27. What you were looking at ?
He has gone (somewhere).	28. where he had gone ?
Don likes(something)	29. What does Don likes ?
They had played(somewhere).	30. Where did they had played ?
They live (somewhere).	31. Where do they like ?
They have eaten(something).	32. What they had eaten ?
He wanted(something) yesterday.	33. What did he wanted yesterday
They are going(somewhere).	34. Where they was going ?
Ram is doing (something).	35. What do Ram are doing ?
She was walking(somewhere).	36. Where did she was walking
Ravi has taken it(somewhere).	37. Where Ravi had taken it ?
You have written it sometime).	38. When do you had written it ?
We had looked at (something)	39. What had he looked at ?
He wants to go(somewhere).	40. Where did he wants to go ?
You like(something)	41. What did you like ?
John was getting(something)	42. What was John getting ?
Babu can come(sometime)	43. When Can Babu come ?
She will sing (sometime)	44. When she will sing ?
He can write(something)	45. What he can write ?
Arun must go (somewhere)	46. Where must Arun go ?
Kata will go(somewhere).	47. Where did Kata will go ?

Appendix IV. TASK

N. ANTHONY KHONGSIT class-IV(Boy) Ka Iarem ka jingja ka lang 12

H-Elicit.

Change the following sentences into questions. (2) (1)

1. Rita likes rosgullas. and Jelebis. Rita likes rasgullas and Jelebis ? X 0
2. They went to go. They went to go? X 0
3. You went to school yesterd y You went to school? X 0
4. Tom lives (somewhere) Where Tom lives? 0
5. They come (sometime) When do they come? 0
6. She asked for the book yesterday. She asked for the book? X 0
7. They feel sorry They feel sorry? X 0
8. He is going with you He going with you? X 0
9. They are running a race. Who are running a race? WH+Aux 0
10. They go, (sometime) When they go? 0
11. Tom likes (something) What Tom likes? 0
12. Yesterday you met her (somewhere) Where you met her? 0
13. They were asking for it. Who were asking for it? WH+Aux 0
14. He plays the guitar. He play the guitar? WO 0
15. She was going. Where she going? Was - - - 0
16. I have written to her. Why written to her? Have - - - 0
17. I had taken my dinner. Why taken my dinner? Had - - - 0
18. He hadn't gone home yet. Where gone home yet? Hadn't - - - 0
19. He has gone home. Where gone home? Has - - - 0
20. He had bought it. What he had bought it? Had - - - 0
21. He hadn't bought it. Is he had bought? Hadn't - - - 0
22. Yesterday he didn't go with you Where he didn't go with you? Didn't 0
23. You aren't reading now. Where aren't reading now? Aren't - - - 0
24. He didn't like football. Where he didn't like football? Didn't - - - 0
25. I am not looking at the picture. Where looking at the picture? Am - - - 0
26. You haven't taken the books home. Why taken the books home? Haven't - - - 0
27. He hasn't eaten the food. Why eaten the food? Hasn't - - - 0
28. I was running (sometime) When was running? WO 0
29. She is crying (for some reason) Why she is crying? WO 0
30. He is going (sometime) When he is going? WO 0
31. Yesterday he fell down (somewhere) Where he fell down? He did! 0
32. They have taken it somewhere) Where they have taken it? WO 0
33. He has gone (somewhere) Where he has gone ? WO 0
34. He had gone (somewhere) Where he had gone? WO 0
35. She had taken it (somewhere) Where taken it? 0

12/50 = 24%

8/35 = 23%

11/50 = 22%

TABLE V.1.A. CORRELATIONS IN TENSE AND ASPECT. (ALL NINE GROUPS)

SUBFILE	K4	H4	E4	K7	H7	E7	K10	H10	E10	
	PEARSON CORRELATION COEFFICIENTS									
	SING3PD	SING3MC	SING3FB	SIMPSTPD	SIMPSTMC	SIMPSTFB	PRESPRO	PRESPER	PSTPRO	PSTPER
SING3PD	1.0000	0.6190	0.9121	0.9422	0.5181	0.8133	0.6462	0.9015	0.7030	0.8711
	(90)	(90)	(90)	(90)	(90)	(90)	(90)	(90)	(90)	(90)
	P=******	P=0.000	P=0.000	P=0.000	P=0.000	P=0.000	P=0.000	P=0.000	P=0.000	P=0.000
SING3MC	0.6190	1.0000	0.6502	0.6658	0.8208	0.7982	0.7967	0.7145	0.8128	0.7534
	(90)	(90)	(90)	(90)	(90)	(90)	(90)	(90)	(90)	(90)
	P=0.000	P=******	P=0.000	P=0.000	P=0.000	P=0.000	P=0.000	P=0.000	P=0.000	P=0.000
SING3FB	0.9121	0.6502	1.0000	0.8697	0.5630	0.8493	0.7049	0.8857	0.7570	0.8824
	(90)	(90)	(90)	(90)	(90)	(90)	(90)	(90)	(90)	(90)
	P=0.000	P=0.000	P=******	P=0.000	P=0.000	P=0.000	P=0.000	P=0.000	P=0.000	P=0.000
SIMPSTPD	0.9422	0.6658	0.8697	1.0000	0.5290	0.8328	0.6844	0.8837	0.7399	0.8716
	(90)	(90)	(90)	(90)	(90)	(90)	(90)	(90)	(90)	(90)
	P=0.000	P=0.000	P=0.000	P=******	P=0.000	P=0.000	P=0.000	P=0.000	P=0.000	P=0.000
SIMPSTMC	0.5181	0.8208	0.5630	0.5290	1.0000	0.6815	0.6902	0.6269	0.6668	0.6468
	(90)	(90)	(90)	(90)	(90)	(90)	(90)	(90)	(90)	(90)
	P=0.000	P=0.000	P=0.000	P=0.000	P=******	P=0.000	P=0.000	P=0.000	P=0.000	P=0.000
SIMPSTFB	0.8133	0.7982	0.8493	0.8328	0.6815	1.0000	0.8005	0.9198	0.8536	0.9341
	(90)	(90)	(90)	(90)	(90)	(90)	(90)	(90)	(90)	(90)
	P=0.000	P=0.000	P=0.000	P=0.000	P=0.000	P=******	P=0.000	P=0.000	P=0.000	P=0.000
PRESPRO	0.6462	0.7967	0.7049	0.6844	0.6902	0.8005	1.0000	0.7804	0.9307	0.8159
	(90)	(90)	(90)	(90)	(90)	(90)	(90)	(90)	(90)	(90)
	P=0.000	P=0.000	P=0.000	P=0.000	P=0.000	P=0.000	P=******	P=0.000	P=0.000	P=0.000
PRESPER	0.9015	0.7145	0.8857	0.8837	0.6269	0.9198	0.7804	1.0000	0.8318	0.9722
	(90)	(90)	(90)	(90)	(90)	(90)	(90)	(90)	(90)	(90)
	P=0.000	P=0.000	P=0.000	P=0.000	P=0.000	P=0.000	P=0.000	P=******	P=0.000	P=0.000
PSTPRO	0.7030	0.8128	0.7570	0.7399	0.6668	0.8536	0.9307	0.8318	1.0000	0.8688
	(90)	(90)	(90)	(90)	(90)	(90)	(90)	(90)	(90)	(90)
	P=0.000	P=0.000	P=0.000	P=0.000	P=0.000	P=0.000	P=0.000	P=0.000	P=******	P=0.000
PSTPER	0.8711	0.7534	0.8824	0.8716	0.6468	0.9341	0.8159	0.9722	0.8688	1.0000
	(90)	(90)	(90)	(90)	(90)	(90)	(90)	(90)	(90)	(90)
	P=0.000	P=0.000	P=0.000	P=0.000	P=0.000	P=0.000	P=0.000	P=0.000	P=0.000	P=******

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FILE ORRELATI (CREATION DATE = 24/03/83) TABLE V.I.B. CORRELATIONS IN TENSE AND ASPECT (EM GROUPS)
SUBFILE E4 E7 E10

PEARSON CORRELATION COEFFICIENTS

	SING3PD	SING3MC	SING3FB	SIMPSTPD	SIMPSTMC	SIMPSTFB	PRESPRO	PRESPER	PSTPRO	PSTPER
SING3PD	1.0000	0.3306	0.7051	0.6684	0.4400	0.6341	0.2937	0.7707	0.4375	0.7077
	(30)	(30)	(30)	(30)	(30)	(30)	(30)	(30)	(30)	(30)
	P=*****	P=0.074	P=0.000	P=0.000	P=0.015	P=0.000	P=0.115	P=0.000	P=0.016	P=0.000
SING3MC	0.3306	1.0000	0.3901	0.3332	0.5897	0.3870	0.4710	0.4848	0.4621	0.6123
	(30)	(30)	(30)	(30)	(30)	(30)	(30)	(30)	(30)	(30)
	P=0.074	P=*****	P=0.033	P=0.072	P=0.001	P=0.035	P=0.009	P=0.007	P=0.010	P=0.000
SING3FB	0.7051	0.3901	1.0000	0.4614	0.3190	0.6961	0.5282	0.8630	0.7661	0.8422
	(30)	(30)	(30)	(30)	(30)	(30)	(30)	(30)	(30)	(30)
	P=0.000	P=0.033	P=*****	P=0.010	P=0.086	P=0.000	P=0.003	P=0.000	P=0.000	P=0.000
SIMPSTPD	0.6684	0.3332	0.4614	1.0000	0.2911	0.4324	0.2863	0.4713	0.3095	0.5081
	(30)	(30)	(30)	(30)	(30)	(30)	(30)	(30)	(30)	(30)
	P=0.000	P=0.072	P=0.010	P=*****	P=0.119	P=0.017	P=0.125	P=0.009	P=0.096	P=0.004
SIMPSTMC	0.4400	0.5897	0.3190	0.2911	1.0000	0.3064	0.2428	0.5409	0.2624	0.3577
	(30)	(30)	(30)	(30)	(30)	(30)	(30)	(30)	(30)	(30)
	P=0.015	P=0.001	P=0.086	P=0.119	P=*****	P=0.100	P=0.196	P=0.002	P=0.161	P=0.052
SIMPSTFB	0.6341	0.3870	0.6961	0.4324	0.3064	1.0000	0.3143	0.8357	0.5655	0.7810
	(30)	(30)	(30)	(30)	(30)	(30)	(30)	(30)	(30)	(30)
	P=0.000	P=0.035	P=0.000	P=0.017	P=0.100	P=*****	P=0.091	P=0.000	P=0.001	P=0.000
PRESPRO	0.2937	0.4710	0.5282	0.2863	0.2428	0.3143	1.0000	0.3746	0.7325	0.4685
	(30)	(30)	(30)	(30)	(30)	(30)	(30)	(30)	(30)	(30)
	P=0.115	P=0.009	P=0.003	P=0.125	P=0.196	P=0.091	P=*****	P=0.041	P=0.000	P=0.009
PRESPER	0.7707	0.4848	0.8630	0.4713	0.5409	0.8357	0.3746	1.0000	0.6803	0.8687
	(30)	(30)	(30)	(30)	(30)	(30)	(30)	(30)	(30)	(30)
	P=0.000	P=0.007	P=0.000	P=0.009	P=0.002	P=0.000	P=0.041	P=*****	P=0.000	P=0.000
PSTPRO	0.4375	0.4621	0.7661	0.3095	0.2624	0.5655	0.7325	0.6803	1.0000	0.6533
	(30)	(30)	(30)	(30)	(30)	(30)	(30)	(30)	(30)	(30)
	P=0.016	P=0.010	P=0.000	P=0.096	P=0.161	P=0.001	P=0.000	P=0.000	P=*****	P=0.000
PSTPER	0.7077	0.6123	0.8422	0.5081	0.3577	0.7810	0.4685	0.8687	0.6533	1.0000
	(30)	(30)	(30)	(30)	(30)	(30)	(30)	(30)	(30)	(30)
	P=0.000	P=0.000	P=0.000	P=0.004	P=0.052	P=0.000	P=0.009	P=0.000	P=0.000	P=*****

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FILE ORRELATI (CREATION DATE = 24/03/83)
SUBFILE K4 K7 K10

TABLE V.1.C. CORRELATIONS IN TENSE AND ASPECT (NEM(k) GROUPS

PEARSON CORRELATION COEFFICIENTS

	SING3PD	SING3NC	SING3FB	SIMPSTPD	SIMPSTNC	SIMPSTFB	PRESPRO	PRESPER	PSTPRO	PSTPER
SING3PI	1.0000	0.3200	0.7246	0.4003	0.3319	0.4137	0.2754	0.3654	0.3824	0.4385
	(30)	(30)	(30)	(30)	(30)	(30)	(30)	(30)	(30)	(30)
	P=******	P=0.085	P=0.000	P=0.029	P=0.073	P=0.023	P=0.141	P=0.047	P=0.037	P=0.018
SING3NC	0.3200	1.0000	0.3821	0.3834	0.9025	0.6377	0.6348	0.5491	0.6686	0.6085
	(30)	(30)	(30)	(30)	(30)	(30)	(30)	(30)	(30)	(30)
	P=0.085	P=******	P=0.037	P=0.036	P=0.000	P=0.000	P=0.000	P=0.002	P=0.000	P=0.000
SING3FB	0.7246	0.3821	1.0000	0.4688	0.4677	0.5639	0.5506	0.5233	0.6095	0.5437
	(30)	(30)	(30)	(30)	(30)	(30)	(30)	(30)	(30)	(30)
	P=0.000	P=0.037	P=******	P=0.009	P=0.009	P=0.001	P=0.002	P=0.003	P=0.000	P=0.002
SIMPSTPD	0.4003	0.3834	0.4688	1.0000	0.4043	0.6987	0.4870	0.5952	0.5716	0.6778
	(30)	(30)	(30)	(30)	(30)	(30)	(30)	(30)	(30)	(30)
	P=0.029	P=0.036	P=0.009	P=******	P=0.027	P=0.000	P=0.006	P=0.000	P=0.001	P=0.000
SIMPSTNC	0.3319	0.9025	0.4677	0.4043	1.0000	0.6158	0.6016	0.6153	0.6297	0.6704
	(30)	(30)	(30)	(30)	(30)	(30)	(30)	(30)	(30)	(30)
	P=0.073	P=0.000	P=0.009	P=0.027	P=******	P=0.000	P=0.000	P=0.000	P=0.000	P=0.000
SIMPSTFB	0.4137	0.6377	0.5639	0.6987	0.6158	1.0000	0.6970	0.7848	0.7843	0.8521
	(30)	(30)	(30)	(30)	(30)	(30)	(30)	(30)	(30)	(30)
	P=0.023	P=0.000	P=0.001	P=0.000	P=0.000	P=******	P=0.000	P=0.000	P=0.000	P=0.000
PRESPRO	0.2754	0.6348	0.5506	0.4870	0.6016	0.6970	1.0000	0.7877	0.8037	0.7504
	(30)	(30)	(30)	(30)	(30)	(30)	(30)	(30)	(30)	(30)
	P=0.141	P=0.000	P=0.002	P=0.006	P=0.000	P=0.000	P=******	P=0.000	P=0.000	P=0.000
PRESPER	0.3654	0.5491	0.5233	0.5952	0.6153	0.7848	0.7877	1.0000	0.8233	0.9441
	(30)	(30)	(30)	(30)	(30)	(30)	(30)	(30)	(30)	(30)
	P=0.047	P=0.002	P=0.003	P=0.000	P=0.000	P=0.000	P=0.000	P=******	P=0.000	P=0.000
PSTPRO	0.3824	0.6686	0.6095	0.5716	0.6297	0.7843	0.8037	0.8233	1.0000	0.8430
	(30)	(30)	(30)	(30)	(30)	(30)	(30)	(30)	(30)	(30)
	P=0.037	P=0.000	P=0.000	P=0.001	P=0.000	P=0.000	P=0.000	P=0.000	P=******	P=0.000
PSTPER	0.4385	0.6085	0.5437	0.6778	0.6704	0.8521	0.7504	0.9441	0.8430	1.0000
	(30)	(30)	(30)	(30)	(30)	(30)	(30)	(30)	(30)	(30)
	P=0.018	P=0.000	P=0.002	P=0.000	P=0.000	P=0.000	P=0.000	P=0.000	P=0.000	P=******

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FILE ORRELATI (CREATION DATE = 24/03/83) TABLE V.I.D. CORRELATIONS IN TENSE AND ASPECT (NEM CH) GROUPS
SUBFILE H4 H7 H10

Ø- - - - - - - - - - - - - PEARSON CORRELATION COEFFICIENTS - - - - - - - - - - - - -

	SING3PD	SING3MC	SING3FB	SIMPSTPD	SIMPSTMC	SIMPSTFB	PRESPRO	PRESPER	PSTPRO	PSTPER
SING3PD	1.0000	Ø.5847	Ø.9784	Ø.8967	Ø.2017	Ø.7818	Ø.5553	Ø.8049	Ø.6216	Ø.8397
	(30)	(30)	(30)	(30)	(30)	(30)	(30)	(30)	(30)	(30)
	P=*****	P=Ø.001	P=Ø.000	P=Ø.000	P=Ø.285	P=Ø.000	P=Ø.001	P=Ø.000	P=Ø.000	P=Ø.000
SING3MC	Ø.5847	1.0000	Ø.6073	Ø.6632	Ø.7832	Ø.8351	Ø.7738	Ø.6824	Ø.8011	Ø.7240
	(30)	(30)	(30)	(30)	(30)	(30)	(30)	(30)	(30)	(30)
	P=Ø.001	P=*****	P=Ø.000	P=Ø.000	P=Ø.000	P=Ø.000	P=Ø.000	P=Ø.000	P=Ø.000	P=Ø.000
SING3FB	Ø.9784	Ø.6073	1.0000	Ø.8695	Ø.2394	Ø.8058	Ø.5731	Ø.8209	Ø.6424	Ø.8486
	(30)	(30)	(30)	(30)	(30)	(30)	(30)	(30)	(30)	(30)
	P=Ø.000	P=Ø.000	P=*****	P=Ø.000	P=Ø.203	P=Ø.000	P=Ø.001	P=Ø.000	P=Ø.000	P=Ø.000
SIMPSTPD	Ø.8967	Ø.6632	Ø.8695	1.0000	Ø.2711	Ø.7841	Ø.5702	Ø.7284	Ø.6379	Ø.7891
	(30)	(30)	(30)	(30)	(30)	(30)	(30)	(30)	(30)	(30)
	P=Ø.000	P=Ø.000	P=Ø.000	P=*****	P=Ø.147	P=Ø.000	P=Ø.001	P=Ø.000	P=Ø.000	P=Ø.000
SIMPSTMC	Ø.2017	Ø.7832	Ø.2394	Ø.2711	1.0000	Ø.5945	Ø.6141	Ø.4410	Ø.5905	Ø.4609
	(30)	(30)	(30)	(30)	(30)	(30)	(30)	(30)	(30)	(30)
	P=Ø.285	P=Ø.000	P=Ø.203	P=Ø.147	P=*****	P=Ø.001	P=Ø.000	P=Ø.015	P=Ø.001	P=Ø.010
SIMPSTFB	Ø.7818	Ø.8351	Ø.8058	Ø.7841	Ø.5945	1.0000	Ø.7513	Ø.9280	Ø.8030	Ø.9220
	(30)	(30)	(30)	(30)	(30)	(30)	(30)	(30)	(30)	(30)
	P=Ø.000	P=Ø.000	P=Ø.000	P=Ø.000	P=Ø.001	P=*****	P=Ø.000	P=Ø.000	P=Ø.000	P=Ø.000
PRESPRO	Ø.5553	Ø.7738	Ø.5731	Ø.5702	Ø.6141	Ø.7513	1.0000	Ø.7264	Ø.9224	Ø.7693
	(30)	(30)	(30)	(30)	(30)	(30)	(30)	(30)	(30)	(30)
	P=Ø.001	P=Ø.000	P=Ø.001	P=Ø.001	P=Ø.000	P=Ø.000	P=*****	P=Ø.000	P=Ø.000	P=Ø.000
PRESPER	Ø.8049	Ø.6824	Ø.8209	Ø.7284	Ø.4410	Ø.9280	Ø.7264	1.0000	Ø.7604	Ø.9743
	(30)	(30)	(30)	(30)	(30)	(30)	(30)	(30)	(30)	(30)
	P=Ø.000	P=Ø.000	P=Ø.000	P=Ø.000	P=Ø.015	P=Ø.000	P=Ø.000	P=*****	P=Ø.000	P=Ø.000
PSTPRO	Ø.6216	Ø.8011	Ø.6424	Ø.6379	Ø.5905	Ø.8030	Ø.9224	Ø.7604	1.0000	Ø.8160
	(30)	(30)	(30)	(30)	(30)	(30)	(30)	(30)	(30)	(30)
	P=Ø.000	P=Ø.000	P=Ø.000	P=Ø.000	P=Ø.001	P=Ø.000	P=Ø.000	P=Ø.000	P=*****	P=Ø.000
PSTPER	Ø.8397	Ø.7240	Ø.8486	Ø.7891	Ø.4609	Ø.9220	Ø.7693	Ø.9743	Ø.8160	1.0000
	(30)	(30)	(30)	(30)	(30)	(30)	(30)	(30)	(30)	(30)
	P=Ø.000	P=Ø.000	P=Ø.000	P=Ø.000	P=Ø.010	P=Ø.000	P=Ø.000	P=Ø.000	P=Ø.000	P=*****

Ø(COEFFICIENT / (CASES) / SIGNIFICANCE) (A VALUE OF 99.0000 IS PRINTED IF A COEFFICIENT CANNOT BE COMPUTED)
:B:
Edit:E

APPENDIX V. SCATTERGRAM FOR CHAPTER 5.

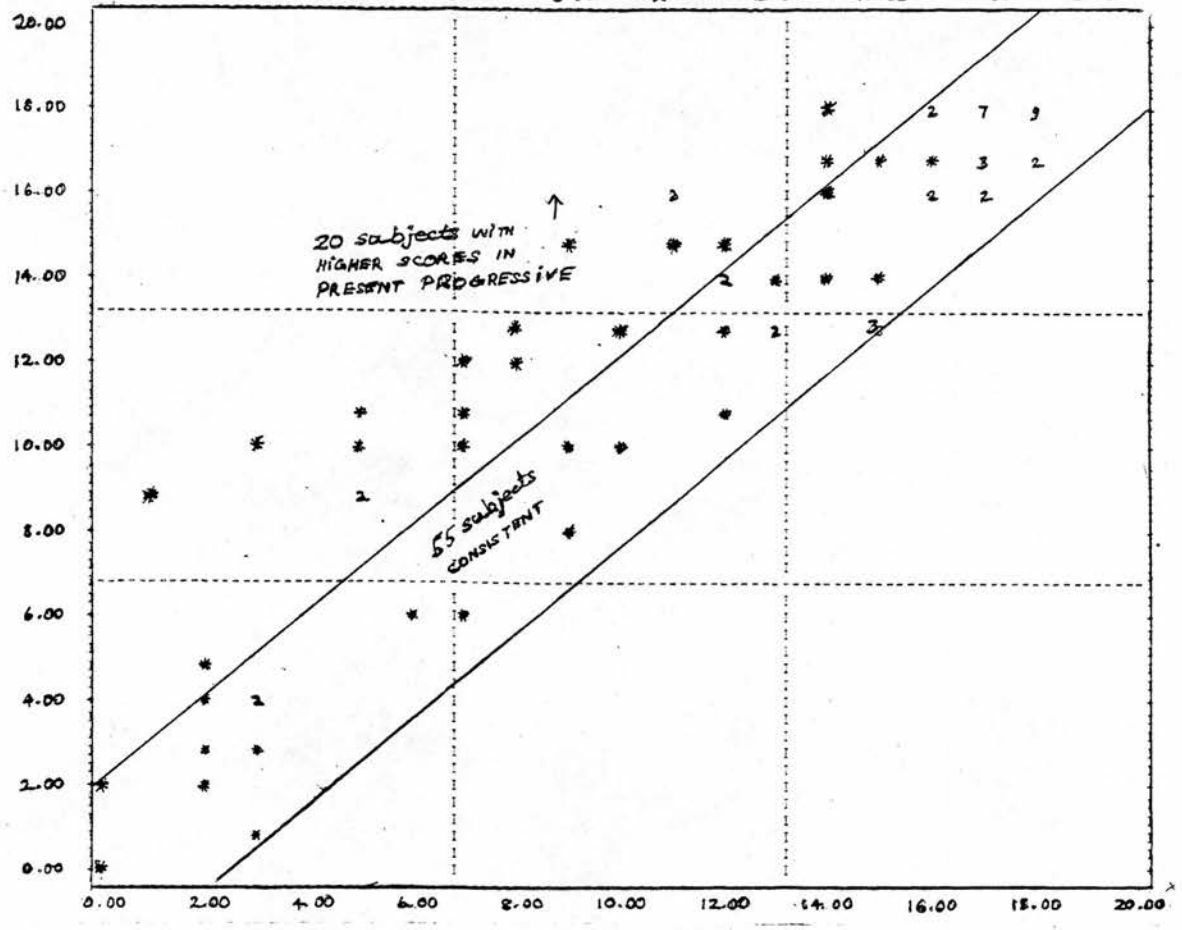
RELATION TENNSP — Scattergram 2 — PROGRESSIVE ASPECT — 29/03/83 — PAGE 2 Appendi

FILE OPPELATI (OPERATION DATE = 24/03/83)

PROFILE H4 E4 K7 H7 E7 K10 H10 E10

SCATTERGRAM OF (DOWN) PRESPRO (ACROSS) PSTRRO

1.00 3.00 5.00 7.00 9.00 11.00 13.00 15.00 17.00 19.00



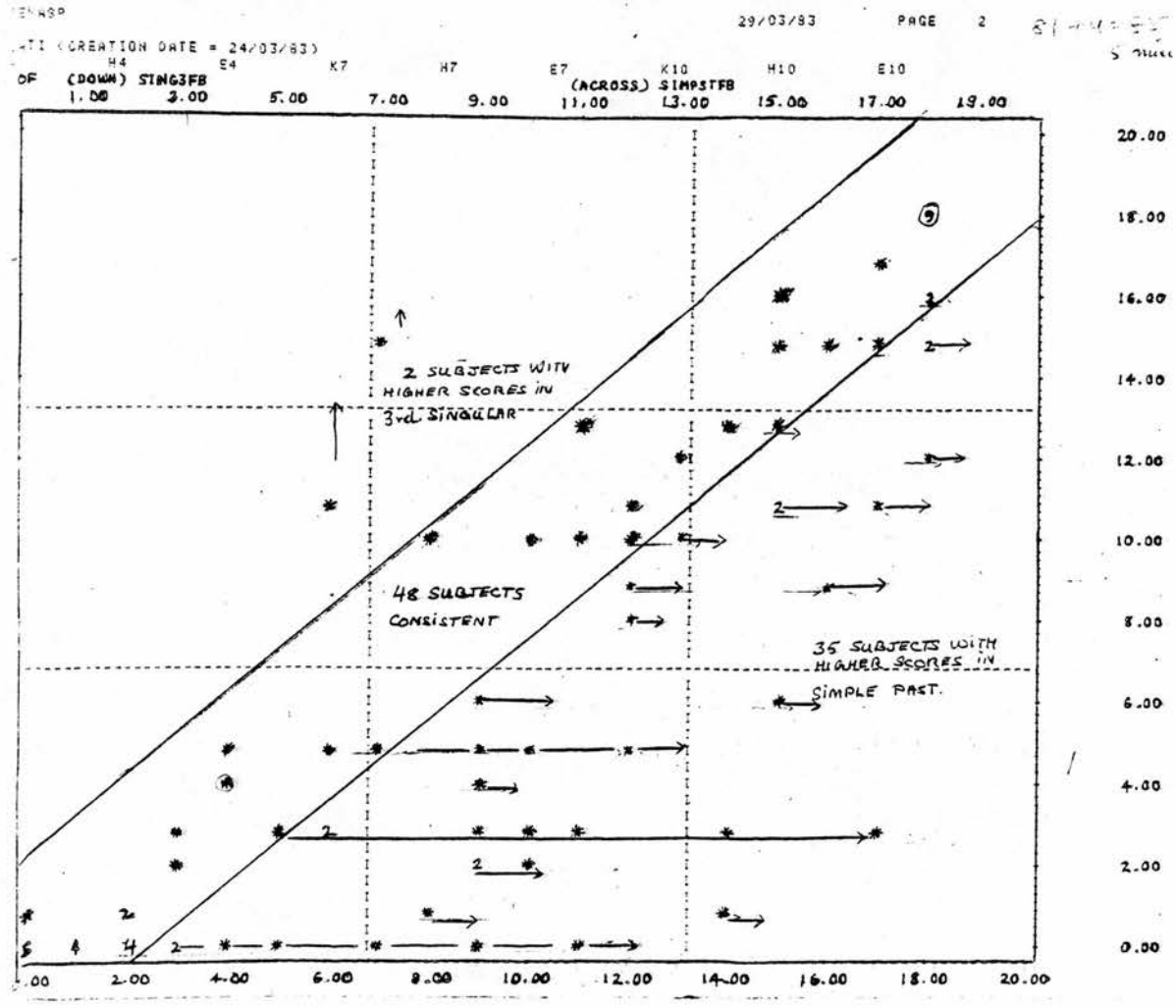
RELATION TENNSP — 29/03/83 — PAGE 3

STATISTICS

CORRELATION (R) -	0.93068	R SQUARED -	0.86617	SIGNIFICANCE -	0.00000
STD ERR OF EST -	1.85629	INTERCEPT (A) -	3.44957	SLOPE (B) -	0.81945
PLOTTED VALUES -	90	EXCLUDED VALUES -	0	MISSING VALUES -	0

Appendix V.

Scattergram 3. 3rd. Singular and Simple Past.



29/03/83 PAGE 3

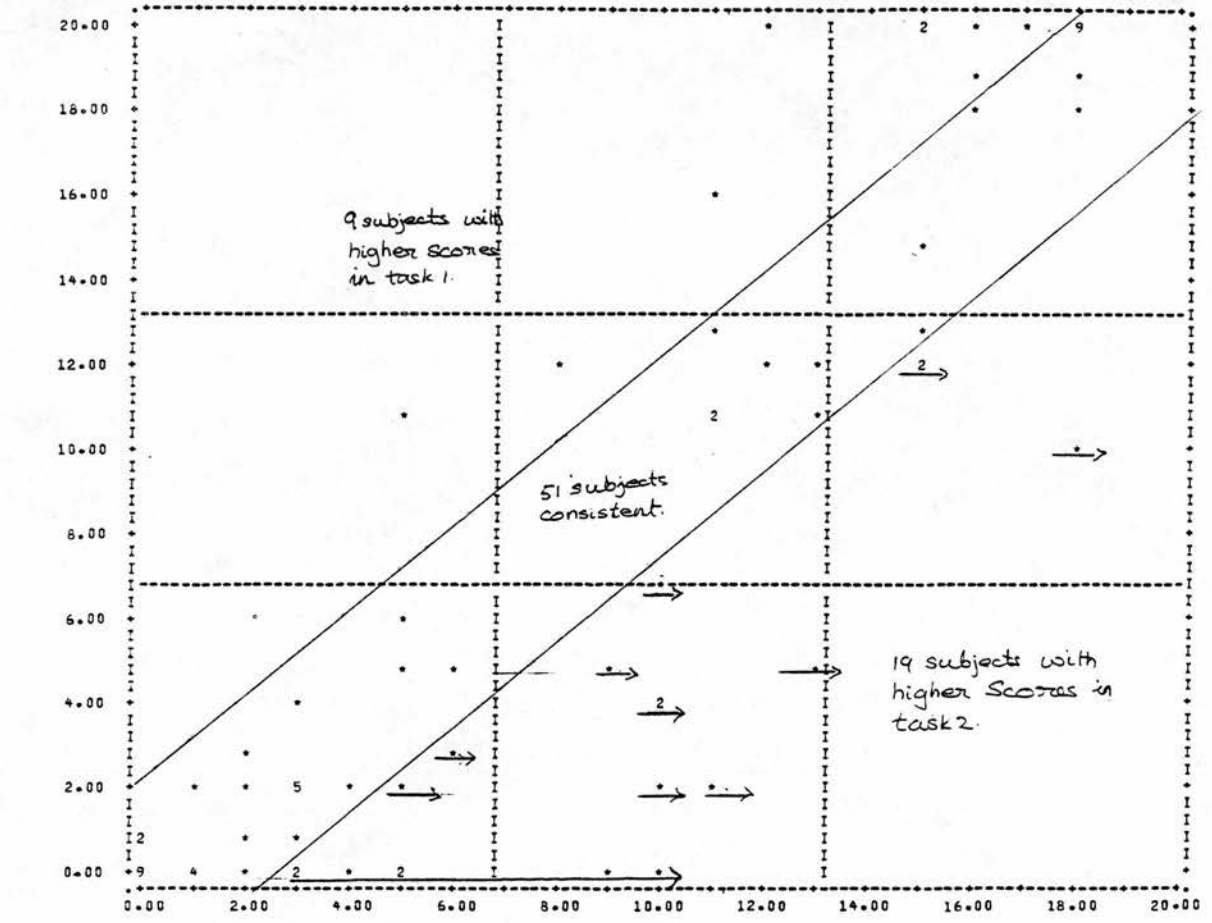
R =	0.84935	R SQUARED =	0.72139	SIGNIFICANCE =	0.00000
TEST =	3.61149	INTERCEPT (A) =	-1.73684	SLOPE (B) =	0.92300
CASES =	90	EXCLUDED VALUES =	0	MISSING VALUES =	0

'*********' IS PRINTED IF A COEFFICIENT CANNOT BE COMPUTED

29/03/83

APPENDIX V. SCATTERGRAM FOR CHAPTER 5.

FILE ORRELATI (CREATION DATE = 24/03/83) SCATTERGRAM 4. TASK 1 AND TASK 2. IN 3rd. Singular.
SUBFILE K4 H4 E4 K7 H7 E7 K10 H10 E10
SCATTERGRAM OF (DOWN) SING3PC (Task 1) (ACROSS) SING3FB (Task 2)

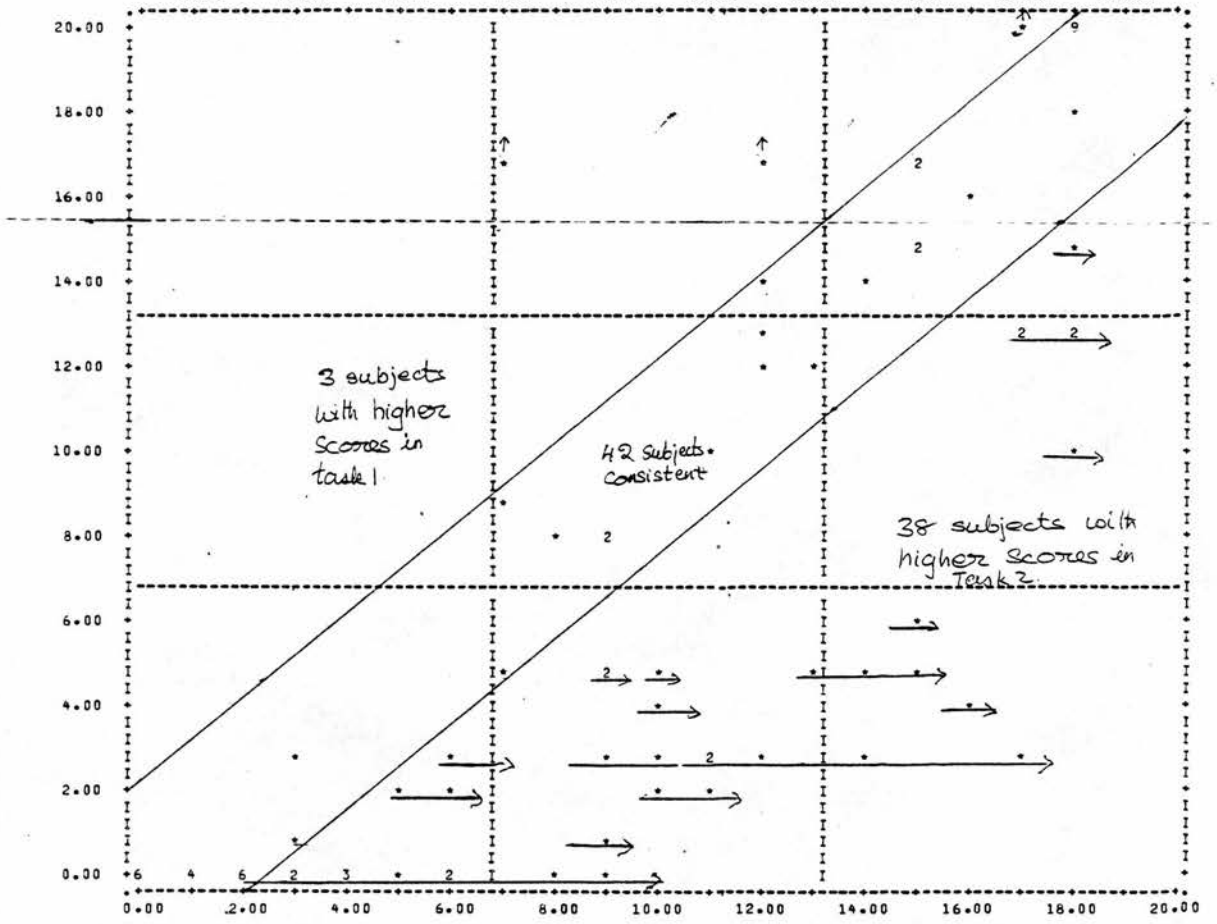


STATISTICS..

CORRELATION (R)-	0.91212	R SQUARED -	0.83196	SIGNIFICANCE -	0.00000

APPENDIX V. SCATTTERGRAM FOR CHAPTER 5

ILE ORRELATI (CREATION DATE = 24/03/83) SCATTERGRAMS Task 1 and Task 2 in Simple Past
UBFILE K4 H4 E4 K7 H7 E7 K10 H10 E10
CATTERGRAM OF (DOWN) SIMPSTFD (ACROSS) SIMPSTFB



STATISTICS..

CORRELATION (R)-	0.83283	R SQUARED -	0.69360	SIGNIFICANCE -	0.0000
STD ERR OF EST -	4.27944	INTERCEPT (A) -	-2.61988	SLOPE (B) -	1.0226
----- VALUES -	90	EXCLUDED VALUES-	0	MISSING VALUES -	0

Appendix Vi. Table showing correlations between different groups in performances in Wh.Question.Translation

SPEARMAN RO 04/05/83 PAGE 3

FILE RO (CREATION DATE = 04/05/83)

SPEARMAN CORRELATION COEFFICIENTS

VARIABLE PAIR		VARIABLE PAIR		VARIABLE PAIR		VARIABLE PAIR		VARIABLE PAIR		VARIABLE PAIR	
E7 WITH E10	0.9847 N(16) SIG .001	E7 WITH K7	0.9447 N(16) SIG .001	E7 WITH K10	0.9804 N(16) SIG .001	E7 WITH H7	0.9804 N(16) SIG .001	E7 WITH H10	0.7585 N(16) SIG .001	E10 WITH K7	0.9654 N(16) SIG .001
E10 WITH K10	0.9654 N(16) SIG .001	E10 WITH H7	0.9654 N(16) SIG .001	E10 WITH H10	0.7413 N(16) SIG .001	K7 WITH K10	0.9262 N(16) SIG .001	K7 WITH H7	0.9068 N(16) SIG .001	K7 WITH H10	0.7157 N(16) SIG .001
K10 WITH H7	0.9883 N(16) SIG .001	K10 WITH H10	0.7679 N(16) SIG .001	H7 WITH H10	0.7679 N(16) SIG .001						

A VALUE OF 99.0000 IS PRINTED IF A COEFFICIENT CANNOT BE COMPUTED.

BIBLIOGRAPHY

Abbreviations for Journals

IRAL - International Review of Applied Linguistics
ISB - Interlanguage Studies Bulletin
LL - Language Learning
SSLA - Studies in Second Language Acquisition
TESOL Q- TESOL Quarterly
WPB - Working Papers on Bilingualism

AGNIHOTRI, R.K., A.L. Khanna and A. Mukerjee (1983) Variation in the Use of Tenses in English : A Sociolinguistic Perspective. Report of the Indian Council of Social Science Research Project, No.1-120/78 (RP)

AL-JUMAILY, A. (1982) A Developmental Study of the Acquisition of Certain Syntactic Features by Arabic-Speaking Learners. Unpublished Ph.D Thesis, University of Edinburgh

ALLEN, J.P.B. and A. Davies (eds) (1977) Testing and Experimental Methods. ECAL Vol.4. Oxford University Press

ALLERTON, D.J. (1979) Essentials of Grammatical Theory : A Consensus View of Syntax and Morphology. Routledge and Kegan Paul, London, Boston and Henley

ANDERSEN, R.W. (1976) 'A Functor Acquisition Hierarchy Study in Puerto Rico'. Paper presented at the Tenth Annual TESOL Convention, New York

-- (1977) 'The Impoverished State of Cross-Sectional Morpheme Acquisition/Accuracy Methodology'. WPB 14:47-82

-- (1978) 'An Implicational Model for Second Language Research'. LL 28:221-282

-- (ed)(1980) New Dimensions in Second Language Acquisition Research. Newbury House, Rowley, Mass.

ANDERSON, J. (1978) 'Order of Difficulty in Adult Second Language Acquisition'. In W. Ritchie (ed) (1978) 91-108

AQUIST, L. (1975) A New Approach to the Logical Theory of Interrogatives : Analysis and Formalization. TBL Verlag Gunter Marr Tubingen

BAILEY, C.J.N. (1974) Variation and Linguistic Theory. Georgetown University Press, Washington, DC

BAILEY, C.J.N. and R.W. Shuy (eds) (1973) New Ways of Analysing Variation in English. Georgetown University Press, Washington, DC

BAILEY, N., C. Madden and S. Krashen (1974) 'Is there a Natural Sequence in Adult Second Language Learning?' LL 24:235-243

BART, W.M. and D.J. Krus (1973) 'An Ordering Theoretic Method to Determine Hierarchies Among Items'. Educational and Psychological Measurement, 33:291-300

BEEBE, L.M. (1980) 'Sociolinguistic Variation and Style-Shifting in Second Language Acquisition'. LL 30:433-447

BELLUGI, U. (1967) The Acquisition of Negation. Ph.D Dissertation, Harvard University

BELLUGI, U. and R. Brown (1964) 'The Acquisition of Syntax'. In Bellugi, U. and R. Brown (eds) (1964)

-- (eds)(1964) The Acquisition of Language. Monograph of the Society of Research in Child Development, 92. Lafayett, Ind., Child Development Publications

BEVER, T. (1970) 'The Cognitive Basis for Linguistic Structures'. In Hayes (ed) 279-352

BIALYSTOK, E. (1978) 'A Theoretical Model of Second Language Learning'. LL 28:69-83

-- (1979a) 'The Integrity and Interaction of Two Knowledge Sources : Forming Judgements of L2 Grammaticality'. Paper presented at the TESOL Convention, Mass.

-- (1979b) 'Explicit and Implicit Judgements of L2 Grammaticality'. LL 29:81-103

-- (1981) 'A Psycholinguistic Framework for Exploring the Basis of Second Language Proficiency'. Paper presented at the BAAL Seminar, Lancaster, England

-- (1982) 'On the Relationship between Knowing and Using Linguistic Forms'. Applied Linguistics 3:181-206

BICKERTON, D. (1971) 'Inherent Variability and Variable Rules'. Foundations of Language 7:457-492

-- (1973) 'On the Nature of A Creole Continuum'. Language 49:640-649

-- (1975) Dynamics of a Creole System. Cambridge University Press, London

BLOOM, L. (1970) Language Development : Form and Function in Emerging Grammar. The M.I.T. Press, Cambridge, Mass.

BORLAND, H.E. (1983) The Acquisition of Some Features of English Syntax by Four Groups of Adolescent Migrants to Australia. Unpublished Ph.D. Thesis, University of Edinburgh

BOWERMAN, M. (1973) Early Syntactic Development. Cambridge University Press, London

— (1979) 'The Acquisition of Complex Sentences'. In Fletcher and Garman (eds) (1979)

BROWN, H.D., C. Yorio and R. Crymes (eds) (1977) TESOL '77 : Teaching and Learning English as a Second Language. TESOL, Washington, DC

BROWN, R. (1968a) 'Derivational Complexity and Order of Acquisition in Child Speech'. In Brown (1970)

— (1968b) 'The Development of Wh-Questions in Child Speech'. Journal of Verbal Learning and Verbal Behaviour 7:279-290

— (1970) Psycholinguistics : Selected Papers. The Free Press (Division of Macmillan Co.) New York

— (1973) A First Language - The Early Stages. The M.I.T. Press, Cambridge, Mass.

BROWN, R. and T. Berko (1960) 'Word Association and the Acquisition of Grammar'. Child Development 31:1-14

BROWN, R. and U. Bellugi (1964) 'Three Processes in the Child's Acquisition of Syntax'. In E.H. Lenneberg (ed) (1964)

BROWN, R. and C. Fraser (1964) The Acquisition of Syntax : Verbal Behaviour and Learning : Problems and Processes. In Cofer, C. and P. Musgrave (eds) (1964)

BROWN, R. and C. Hanlon (1968) Derivational Complexity and Order of Acquisition in Child Speech. Paper presented at Carnegie-Mellon Symposium on Cignitive Psychology, Pittsburgh

BRUMFIT, C. and K. Johnson (eds) (1979) The Communicative Approach to Language Teaching. Oxford University Press

BURT, M. and H. Dulay (eds) (1975) New Directions in Second Language Learning, Teaching and Bilingual Education

— (1980) 'On Acquisitional Orders'. In Felix (ed) (1980)

BURT, M., H. Dulay and M. Finocchiaro (eds) (1977) Viewpoints on English as a Second Language. Regents Publishing Co., New York

BURT, M., H. Dulay and E. Hernandez (1975) The Bilingual Syntax Measure. Harcourt Brace Jovanich, New York

Braine, M.D.S., (1971). 'The acquisition of language in infant and child' In Reed, C. (ed.) The Learning of Language. New York. Appleton.

BUTTERWORTH, G.A. (1972) A Spanish-Speaking Adolescent's Acquisition of English Syntax. MA-TESL Thesis, UCLA

BUTTERWORTH, G.A. and E. Hatch (1978) 'A Spanish-Speaking Adolescent's Acquisition of English Syntax'. In Hatch (ed) (1978) 231-245

CAMPBELL, R. and P.T. Smith (eds) (1978) Recent Advances in the Psychology of Language. Plenum Press, New York

CANCINO, H., E.J. Rosansky and J.H. Shumann (1978) 'The Acquisition of English Negatives and Interrogatives by Native Spanish Speakers'. In Hatch (ed) (1978) 207-230

Candlin, C. (1981). The Communicative Teaching of English. London. Longman

CARROLL, J. (1967) 'Foreign Language Proficiency Levels Attained by Language Majors Near Graduation from College'. Foreign Language Annals 1:131-151

-- (1973) 'Implications of Aptitude Test Research and Psycholinguistic Theory for Foreign Language Teaching'. Linguistics 112:5-13

CARROLL, D. and J.G. Paul Manickam (1979) 'How Do Students Benefit from Structural Teaching?' In CIEFL Newsletter Vol.XV,4. Hyderabad

CEDERGRAN, H.J. and D. Sankoff (1974) 'Variable Rules : Performance as a Statistical Reflection of Competence'. Language 50:333-355

CHAMOT, A.U. (1978) 'Grammatical Problems in Learning English as a Third Language'. In Hatch (ed) (1978) 175-189

CHANGEUX, J.P. (1980) 'Properties of the Neuronal Network'. In Piatellini-Palmarini (ed) (1980) 184-201

CHOA SHIN, M. (1979) Methods for Diagnosing the Second Language Learner's Knowledge of Target Language Rules. Unpublished Ph.D. Thesis, Yale University

CHOMSKY, N. (1959) 'A Review of B F Skinner's Verbal Behaviour'. Language 35:26-58

-- (1965) Aspects of the Theory of Syntax. M.I.T. Press, Cambridge, Mass.

-- (1980) 'Initial States and Steady States'. In Piattelli-Palmarini (ed) (1980) 107-130

Chomsky, N. (1981). Lectures on government and binding. Dordrecht.

CHOMSKY, N. and M. Halle (1968) The Sound Patterns of English. Harper and Row Publishers, New York, London

CLARK, E. (1977) 'First Language Acquisition'. In Morton, J. and J.C. Marshall (eds) (1977) 1-72

CLARK, H.H. and E. Clark (1977) Psychology and Language : An Introduction to Psycholinguistics. Harcourt Brace Jovanich, New York

CLAHSEN, M. and M. Pienemann (1981) On Determining Developmental States in Natural Second Language Acquisition. Studies in Second Language 3, No.2

COFER, C. and B. Musgrave (eds) (1963) Verbal Behaviour and Learning : Problems and Processes. McGraw Hill Book Co., New York

COHEN, A. and M. Robbins (1976) 'Towards Assessing IL Performance : the Relationship Between Selected Errors, Learners' Characteristics and Learners' Explanation'. LL 26

COMRIE, B. (1976) Aspect : An Introduction to the Study of Verbal Aspect and Related Problems. Cambridge University Press

-- (1981) Language Universals and Linguistic Typology : Syntax and Morphology. Basil Blackwell, Oxford

CORDER, S.P. (1967) 'The Significance of Learners' Errors'. IRAL 5:161-170. Also in Corder 1981:5-13

-- (1971a) 'Idiosyncratic Dialects and Error Analysis'. IRAL 9:147-159. Also in Corder 1971:14-25

-- (1971b) 'Describing the Language Learners' Language'. CILT Reports and Papers, 6. Also in Corder 1981:26-34

-- (1973) 'The Elicitation of Interlanguage'. In Suartuik (ed) Also in Corder 1981:56-64

-- (1975) 'The Study of Interlanguage'. Proceedings of the Fourth International Congress of Applied Linguistics, Vol.2. 1976. Also in Corder 1981:65-78

-- (1977a) ' "Simple Codes" and the Source of the Second Language Learner's Initial Heuristic Hypothesis'. SSLA 1. Also in Corder 1981:79-86

-- (1977b) 'Language Continuaa and the Interlanguage Hypothesis'. In Corder and Roulet (eds) (197?) 1-17. Also in Corder 1981:87-94

-- (1977c) 'Language Teaching and Learning : A Social Encounter'. Paper presented at the TESOL Convention 1977

-- (1978a) 'Learner Language and Teacher Talk'. Audio-Visual Language Journal 16.1. School of Education, University College of North Wales

-- (1978b) 'Language Distance and the Magnitude of the Language Learning Task'. SSLA 2. Also in Corder 1981:95-102

CORDER, S.P. (1978c) 'Language Learner Language'. In Richards, J. (ed)

— (1979) 'Formal Simplicity and Functional Simplification in Second Language Acquisition'. Paper presented at the Colloquim on Research on the Acquisition and Use of a Second Language. TESOL Convention 1979. Also in Andersen, R. (ed) (1980)

-- (1981) 'A Role for the Mother Tongue'. Paper presented at the IXth Conference on Applied Linguistics on Language Transfer. In Gass, S. and L. Selinker (1983) 85-97

CORDER, S.P. and E. Roulet (eds) (1977) The Notions of Simplification, Interlanguages and Pidgins. Actes du 5 eme Colloque de Linguistique Applique de Neuchatel

DAHL, O. (1977) 'Negation in Universal Grammar'. Gothenburg Papers in Theoretical Linguistics 33

-- (1979) 'Typology of Sentence Negation'. In Linguistics 17: 79-106

D'ANGLEJAN, A. (1979) 'A Discussion of Bialystok's 'The Integrity and Interaction of Two Knowledge Sources : Forming Judgements of L2 Grammaticality'. Paper presented at the Colloquim on the Acquisition and Use of a Second Language Under Different Circumstances. TESOL, Boston

-- (1978) 'Language-Learning in and out of Classrooms'. In Richards, J. (1978)

D'ANGLEJAN, A. and G.R. Tucker (1975) 'The Acquisition of Complex English Structures by Adult Learners'. LL 25:281-293

DATO, D. (ed) (1975) Developmental Psycholinguistics : Theory and Applications. Georgetown University Press, 1975

DE CAMP, D. (1971) 'Implicational Scales and Sociolinguistic Linearity'. Linguistics, 73:30-43

-- (1973) 'What do Implicational Scales Imply'. In Bailey and Shuy (eds) 141-148

DE VILLIERS, J. and P. De Villiers (1973) 'A Cross-Sectional Study of the Acquisition of Grammatical Morphemes in Child Speech'. Journal of Psycholinguistic Research 2:267-278

DICKENSON, L.J. (1975) 'The Learner's Interlanguage as a System of Variable Rules'. TESOL Q.9:401-407

DICKENSON, W. (1976) 'The Psycholinguistic Unity of Language Learning and Language Change'. LL 26:215-231

DICKENSON, L.J. and W. Dickenson (1977) 'Interlanguage Phonology : Current Research and Future Directions'. In Corder and Roulet (eds) 18-32

DIXON, W.J. and M.B. Brown (eds) (1979) BMDP-79. Biomedical Computer Programs P-Series. University of California Press

DULAY, H.E. and M.K. Burt (1972) 'Goofing : an Indicator of Children's Second Language Strategies'. LL 22:235-252

-- (1973) 'Should we Teach Children Syntax?' LL 23:245-258

-- (1974a) 'Natural Sequences in Child Second Language Acquisition'. LL 24:37-53

-- (1974b) 'A New Perspective on the Creative Construction Process in Child Second Language Acquisition'. LL 24:253-278

-- (1974c) 'You Can't Learn Without Goofing'. in Richards, J. (ed) (1978)

-- (1974d) 'Errors and Strategies in Child Second Language Acquisition'. TESOL Q.8:129-136

-- (1975a) 'Creative Construction in Second Language Learning and Teaching'. In Burt and Dulay (eds) 21-32

-- (1975b) 'A New Approach to Discovering Universals of Child Second Language Acquisition'. In Dato (ed) (1975) 209-233

-- (1977) 'Remarks on Creativity in Second Language Acquisition'. In Burt, Dulay and Finocchiaro (eds) 95-126

DULAY, H.E., M.K. Burt and M. Finocchiaro (eds) (1977) Viewpoints on English as a Second Language. Regent, New York

DULAY, H.E., M.K. Burt and S. Krashen (1982) Language Two. Oxford University Press, New York

DUSKOVA, L. (1969) 'On Sources of Errors in Foreign Language Learning'. IRAL 4:11-36

ERVIN-TRIPP, S. (1973) 'Some Strategies for the First Two Years'. In Moore, T.(ed), Cognitive Development and the Acquisition of language.

-- (1974) 'Is Second Language Learning like the First?' TESOL Q.8:111-127

FAERCH, C. and G. Kasper (1983) Strategies in Interlanguage Communication. Longman, London and New York

FAIRBANKS, K. (1982) 'Variability in Interlanguage'. Unpublished manuscript, ESL Program, University of Minnesota

FASOLD, R.W. (1970) 'Two Models of Socially Significant Linguistic Variation'. Language 46:551-563

FASOLD, R.W. and R,W. Shuy (eds) (1975) Analyzing Variation in Language. Georgetown University Press, Washington, DC

FATHMAN, A. (1975) 'The Relationship between Age and Second Language Productive Ability'. LL 25:245-266

-- (1979) 'The Value of Morpheme Order Studies for Second Language Learning'. WPB 18

FELIX, S.W. (1975) 'Interference, Interlanguage and Related Issues'. Paper presented at the Conference on German in Contact with Other Languages. Essen. Also in Felix (ed) 1980:93-108

-- (1976) 'Wh Pronouns in First and Second Language Acquisition'. Linguistische Berichte 44:52-64

-- (1978) 'Some Differences between First and Second Language Acquisition'. In Snow, C. and N. Waterson (eds) 1978: 469-487

(ed) (1980) Second Language Development : Trends and Issues. Gunter Narr, Tubingen

-- (1981) 'The Effect of Formal Instruction on Second Language Acquisition'. LL 31:81-112

-- (1984) 'Two Problems of Language Acquisition : the Relevance of Grammatical Studies in the Theory of Interlanguage. Paper presented at the Interlanguage Seminar in Honour of S.P. Corder, Edinburgh, April 1984

FISHBEIN, M (ed) (1967) Readings in Attitude and Measurement. Wiley and Sons, New York

FISHER, R.A. and F. Yates (1938) Statistical Values for Biological, Agricultural and Medical Research. London, Longman (6th edition). Reprinted 1979

FILLMORE, C.J. (1968) 'The Case for Case'. In Bach, E. and R.T. Harms (eds) Universals in Linguistic Theory. New York, Holt, Rinehart and Winston, 1968:1-87

FLETCHER and Garman (eds) (1979) Language Acquisition : Studies in First Language Development. Cambridge University Press

FODOR, J.A. (1966) 'How to Learn to Talk : Some Simple Ways'. In Smith and Miller 196 :105-128

-- (1980) 'Fixation of Belief and Concept Acquisition'. In Piattelli-Palmarini (ed) (1980) 142-162

FODOR, J.A. and J.J. Katz (eds) (1964) The Structure of Language Readings in the Philosophy of Language. Englewood Cliffs,NJ. Prentice Hall

Fillmore, L. (1976). The Second Time Around: Cognitive and Social Strategies in Second Language Acquisition. Unpublished Ph.D. dissertation. Stanford University.

FULLER, J.K, (1978) 'An Investigation of Natural and Monitored Sequences by Non-Native Adult Performers of English'. Paper presented at the TESOL Convention, Mexico City

GARRETT, H.E. (1965) Statistics in Psychology and Education. London

GASS, S. (1984) 'The Empirical Basis for the Universal Hypothesis in Interlanguage Studies'. Paper presented at the Interlanguage Seminar in honour of S.P. Corder, Edinburgh, April 1984

GASS, S. and L. Selinker (eds) (1983) Language Transfer in Language Learning. Newbury House Publishers, Rowley, Mass

GINGRAS, R.C. (ed) (1978) Second Language Acquisition and Foreign Language Teaching. Centre for Applied Linguistics, Washington, DC

GIVON, T. (1979) On Understanding Grammar. Academic Press, New York

GREENBERG, J.H. (1966) Universals of Language. M.I.T. Press, Cambridge, Mass.

-- (ed)(1978) Universals of Human Language, Vol.4. Stanford, California

GUILDFORD, J.P. and B. Fruchter (1978) Fundamental Statistics in Psychology and Education. 6th edition. McGraw-Hill, New York

GUTTMAN, L. (1944) 'A Basis for Scaling Qualitative Data'. In Fishbein, M. (ed) (1967). Also in American Sociological Review 9: 139-150

HAKUTA, K. (1974a) 'A Preliminary Report on the Development of Grammatical Morphemes in a Japanese Girl Learning English as a Second Language'. WPB 3:18-43. Also in Hatch (ed) (1978) 132-147

-- (1974b) 'Prefabricated Patterns and the Emergence of Structure in Second Language Acquisition'. LL 24:287-298

-- (1976) 'A Case Study of a Japanese Child Learning English as a Second Language'. LL 26:321-352

HALLIDAY, M.A.K. (1967) 'Notes on Transitivity and Theme in English'. Journal of Linguistics, Vol.3

-- (1970) 'Functional Diversity in Language'. Paper read at the Yale Linguistics Club, January 1970

-- (1973) Explorations in the Functions of Language. London, Edward Arnold

-- (1975) Learning how to Mean - Explorations in the Development of Language. London, Edward Arnold

HANANIA, E. and H. Gradman (1977) 'Acquisition of English Structures : a Case Study of an Adult Native Speaker of Arabic in an English-Speaking Environment'. LL 27:75-92

HARLEY, B. and M. Swain (1984) 'The Interlanguage of Immersion Students and its Implications for Second Language Teaching'. Paper presented at the Interlanguage Seminar in honour of S.P. Corder, Edinburgh, April 1984

HART, B.K. and J. Schachter (1976) 'Research in Interlanguage : Syntax'. In Fanselow, J. and R. Crymes (eds) On TESOL '76, TESOL, Washington, DC. (1977)

HATCH, E. (1974) 'Second Language Learning - Universals ' WPB 3:1-18

-- (1978a) 'Acquisition of Syntax in a Second Language'. In Richards (ed) (1978)

-- (ed) (1978b) Second Language Acquisition : A Reader. Newbury House, Rowley, Mass

HAYES, J.R. (ed) (1970) Cognition and the Development of Language. John Wiley and Sons, New York

HEIDELBERG FORSCHUNGS PROJECT, 'Pidgin-Deutch' (1978) 'The Acquisition of German Syntax by Foreign Migrant Workers'. In Sankoff (ed)

HORN, L. (1978) 'Some Aspects of Negation'. In Greenberg, J.H. (ed) (1978)

HOUCK, N., J. Robertson and S. Krashen (1978) 'On the Domain of Conscious Grammar : Morpheme Orders for Corrected and Uncorrected ESL Student-Transcription'. TESOL Q. 12

HUANG, J. (1970) 'A Chinese Child's Acquisition of English Syntax'. MA-TESL Thesis, UCLA, 1970

HUANG, J. and E. Hatch (1978) 'A Chinese Child's Acquisition of English'. In Hatch, E. (ed) (1978) 118-131

HYLTENSTAM, K. (1977) 'Implicational Patterns in Interlanguage Syntax Variation'. LL 27:383-411

-- (1978a) 'A Framework for the Study of Interlanguage Continuaa'. Working Papers 16:65-86. Department of Linguistics, Lund University

-- (1978b) 'Variation in Interlanguage Syntax'. Working Papers 18. Department of Linguistics, Lund University

HYMES, D. (1971a) On Communicative Competence. Philadelphia, University of Pennsylvania Press

-- (ed)(1971b) Pidginization and Creolization of Languages. Cambridge University Press, Cambridge

JAIN, M.P. (1969) 'Error Analysis of an Indian English Corpus'. Unpublished paper, University of Edinburgh

JAIN, M.P. (1974) 'Error Analysis : Source, Cause and Significance'. In Richards (1974) 189-215

JESPERSON, O. (1917) 'Negation in English and Other Languages : Selected Writings'.

-- (1956) A Modern English Grammar, Part IV : Syntax. George Allan and Unwin, London. Reprint 1961

JOHNSON, K. (1982) Communicative Syllabus Design and Methodology. Pergamon Press, Oxford

JORDANS, P. (1982) 'Interlanguage Research : Interpretation or Explanation'. LL 30:195-207

KACHRU, Y. (1980) Aspects of Hindi Grammar. Manohar, New Delhi

KELLERMAN, E. (1977) 'Towards a Characterization of the Strategy of Transfer in Second Language Learning. ISB 12:58-146

KEMPSON, R. (1975) Presupposition and the Delimitation of Semantics. Cambridge University Press, London

-- (1977) Semantic Theory. Cambridge University Press, London

KLEIN, W. and N. Dittmar (1978) Developing Grammars. Springer-Verlag, Heidelberg

KLIMA, E.S. (1964) Negation in English. In Fodor and Katz (eds) 246-323

KLIMA, E.S. and U. Bellugi (1966) 'Syntactic Regularities in the Speech of Children'. In Lyons and Wales (eds) 183-219

KRASHEN, S. (1976) 'Formal and Informal Linguistic Environments in Language Learning and Language Acquisition'. TESOL Q.10:157-168

-- (1977a) 'Some Issues Relating to the Monitor Model'. In Brown, Yorio and Crymes (eds) 144-158

-- (1977b) 'The Monitor Model for Adult Second Language Performance'. In Burt, Dulay and Finocchiaro (eds) 152-161

-- (1978a) 'Individual Variation in the Use of the Monitor'. In Ritchie (ed) 175-183

-- (1978b) 'Is the "Natural Order" an Artifact of the Bilingual Syntax Measure?' LL 28:175-183

-- (1980) 'The Theoretical and Practical Relevance of Simple Codes in Second Language Acquisition'. In Scarcella and Krashen (eds)

-- (1981) Second Language Acquisition and Second Language Learning. Pergamon Press, Oxford

KRASHEN, S., J. Butler, R. Birnbaum and J. Robertson (1978) 'Two Studies in Language Acquisition and Language Learning'. ITL : Review of Applied Linguistics 39-40:73-92

KRASHEN, S., N. Houck, P. Guinchi, S. Bode, R. Birnbaum and G. Strei (1977) 'Difficulty Order for Grammatical Morphemes for Adult Second Language Performers Using Free Speech'. TESOL Q. 11:338-341

KRASHEN, S., C. Madden and N. Bailey (1975a) 'Theoretical Aspects of Formal Instruction in Adult Second Language Learning'. TESOL Q. 9:173-183

-- (1975b) 'Theoretical Aspects of Grammatical Sequencing'. In Burt and Dulay (eds) 44-54

KRASHEN, S. and P. Pon (1975) 'An Error Analysis of an Advanced ESL Learner : The Importance of the Monitor'. WPB 7:125-29

KRASHEN, S. and H. Selger (1975) 'The Essential Contribution of Formal Instructions in Adult Second Language Learning'. TESOL Q. 9:173-183

KRASHEN, S. and R. Scarcella (1978) 'On Routines and Patterns in Language Acquisition and Performance'. LL 28:183-200

KRASHEN, S., V. Sferlazza, L. Feldman and A. Fathman (1976) 'Adult Performance on the SLOPE Test : More Evidence for a Natural Sequence in Adult Second Language Acquisition. LL 26:145-151

LABOV, W. (1963) 'The Social Motivation of a Sound Change'. Word 19:273-309

-- (1966) The Social Stratification of English in New York City. Center for Applied Linguistics, Washington, DC

-- (1969) 'Contraction, Deletion, and Inherent Variability of the English Copula'. Language 45:715-762

-- (1972) 'Some Principles of Linguistic Methodology'. Language in Society 1:97-120

LABOV, W. and T. Labov (1978) 'Learning the Syntax of Questions'. In Campbell and Smith (eds)

LARSEN-FREEMAN, D. (1975) 'The Acquisition of Grammatical Morphemes by Adult ESL Students'. TESOL Q. 9:409-419

-- (1976) 'An Explanation of the Morpheme Acquisition Order of Second Language Learners'. LL 26:125-134

-- (1978) 'An Explanation for the Morpheme Accuracy Order of Learners as a Second Language'. In Hatch (1978) 371-379

LASNIK, L. (1975) 'On the Semantics of Negation'. In Hockney, D., W. Harper and B. Freed (eds) Contemporary Research in Philosophy, Logic and Linguistic Semantics. Vol.4. Reidel Publishing, Boston, USA

LAWLER, J. and L. Selinker (1971) 'On Paradoxes, Rules and Research in Second Language Learning'. LL 21:27-43

LEECH, G. (1969) Towards a Semantic Description of English. Longman, London. 2nd edition 1971

LENNEBERG, E. (1964) New Directions in the Study of Language. M.I.T. Press, Cambridge, Mass

-- (1967) The Biological Foundations of Language. Wiley and Sons, New York

LIGHTBOWN, P. (1983) 'Acquiring English L2 in Classrooms'. In Felix and Wode (eds) Language Development at the Crossroads (1983) 102-117. Gunter Narr Verlag, Tubingen

LOCOCO, V. (1976) 'A Comparison of Three Methods for the Collection of L2 Data : Free Composition, Translation, and Picture Description'. WPB 8

LORDS, C. (1974) 'Variation in the Acquisition of Negation'. Papers and Reports on Child Language Devel. Committee of Linguistics, Stanford University

LYONS, J. (1969) Introduction to Theoretical Linguistics, Cambridge University Press

-- (1973) 'Deixis as a Source of Reference'. Work in Progress No.6., Department of Linguistics, University of Edinburgh

-- (1977) Semantics. Vol2. Cambridge University Press

McNEILL, D. (1966a) 'Developmental Psycholinguistics'. In Smith, F. and C.A. Miller (eds) (1966)

-- (1966b) 'The Creation of Language by Children'. In Lyons, J. and R. Wales (eds) (1966) 99-132

-- (1968) 'On theories of Language Acquisition'. In Dixon, T.R. and D.L. Horton (eds) Verbal Behaviour and General Behaviour Theory. Prentice Hall, Englewood Cliffs : NJ

MENYUK, P. (1963) 'Syntactic Structures in the Language of Children'. In Child Development 34:407-22

-- (1971) The Acquisition and Development of Language. Prentice Hall, Englewood Cliffs : NJ

MILAN, J. (1974) 'The Development of Negation in English by a Second Language Learner'. TESOL Q. 8:137-143

MILLER, G.A. (1967) 'The Magical Number Seven, plus or minus Two : Some Limits on our Capacity for Processing Information'. In Miller, G.A. The Psychology of Communication (1968) 14-44. Allen Lane, The Penguin Press, London. (First published by Basic Books, 1967).

NEMSER, W. (1971) 'Approximative Systems of Foreign Language Learners'. IRAL 9:115-123

MEWMARK, L. (1966) 'How not to Interfere with Language Learning'. International Review of American Linguistics 10:77-83

NIE, N., C.H. Hull, J. Jenkins, K. Steinbrenner and D. Bent (1975) Statistical Package for the Social Sciences. 2nd edition. McGraw-Hill, New York

NIELSEN, T. (1974) 'Early Stages in the Non-Native Acquisition of English Syntax : A Study of Three Children from Zaire, Venezuela and Saudi Arabia'. Unpublished Ph.D. Dissertation, Indiana University

OKANLAWON, B.O. (1984) A Study of the Acquisition of Some Aspects of English by Nigerian Learners. Unpublished Ph.D. Thesis, University of Edinburgh

OLDSTEIN, E. (1979) 'The Acquisition of the English Progressive : A Case Study of a Seven Year Old Hebrew Speaker'. WPB 18:81-101

OLLER, J.W. (1979) Language Tests at School. Longman, London

PALMER, F.R. (1965) A Linguistic Study of the English Verb. Longman Linguistic Library, London

PATTANAYAK, D.P. (1974) 'A Note on the Approach to and Structure of the Curriculum in Indian Languages and Second and Foreign Languages in Secondary and Higher Secondary Schools'. CIIL, Mysore

PIATTELLI-PALMARINI, M. (ed) (1980) Language and Learning : The Debate between Jean Piaget and Noam Chomsky. London, Routledge and Kegan Paul

PLATT, J.T. (1976) 'Implicational Scaling and its Pedagogical Implications'. Working Papers in Language and Linguistics 4:46-60

-- (1977) 'English Past Tense Acquisition by Singaporeans - Implicational Scaling Versus Group Averages of Marked Forms'. ITL 38:63-83

-- (1979) 'Variation and Implicational Relationships : Copula Realization in Singapore English'. General Linguistics 19:1-14

PIMSLEUR, P. and T. Quinn (eds) (1971) Psychology of Second Language Learning. Cambridge University Press

QUIRK, R., S. Greenbaum, G. Leech and J. Svartvik (1972) A Grammar of Contemporary English. Longman, London

RAVEM, R. (1968) Language Acquisition in a Second Language Environment. International Review of Applied Linguistics 6:175-85

RAVEM, R. (1974) Second Language Acquisition : A Study of Two Norwegian Children's Acquisition of English Syntax in a Naturalistic Setting. Ph.D.Thesis, University of Essex

-- (1975) 'The Development of Wh Questions in First and Second Language Learners'. In Schumann, J. and N. Stenson (eds) (1975) 153-175

-- (1978) 'Two Norwegian Children's Acquisition of English Syntax'. In Hatch (ed) (1978) 148-154

RICHARDS, J. (1974) 'Developmental Studies of Second Language Acquisition in Children'. In Richards (ed)

-- (ed)(1974) Error Analysis : Perspectives on Second Language Acquisition. Longman, London

-- (ed)(1978) Understanding Second and Foreign Language. Newbury House, Rawley, Mass

RICHARDS, J. and G.D. Sampson (1974) 'The Study of Learner English'. In Richards (ed) (1974)

RITCHIE, W. (ed) (1978) Second Language Acquisition Research : Issues and Implications. Academic Press, New York

RITCHIE, W.C. (ed) (1978) Second Language Acquisition Research. Academic Press, New York

ROSANSKY, E. (1976) 'Methods and Morphemes in Second Language Acquisition'. LL 26:409-425

ROSENBERG, S. (1965) Directions in Psycholinguistics. New York, Macmillan

ROUSSEAU, P. and D. Sankoff (1978) 'Advances in Variable Rule Methodology'. In Sankoff (ed) 57-68

RUTHERFORD, W.D. (1982) 'Markedness in Second Language Acquisition'. LL 32:85-108

SAEGERT, J., M. Scott., J. Perkins and G.R. Tucker (1974) 'A Note on the Relationship between English Proficiency,years of language Study and Medium of Instruction'. LL 24:99-104

SAJAVAARA, K. (1978) The Monitor Model and Monitoring in Foreign Language Speech Communication'. In Gingras (ed) 51-67

SAMPSON, G.P. (1978) 'A Model for Second Language Learning'. The Canadian Modern Language Review 24:2

SANKOFF, D. (ed) (1978) Linguistic Variation : Models and Method. Academic Press, New York

SCARCELLA, R. and S. Krashen (eds) (1980) Research in Second Language Acquisition. Rawley, Mass. Newbury House

SCHACHTER, J. (1974) 'An Error in Error Analysis'. LL 24:205-214

SCHLESINGER, I.M. (1974) 'Relational Concepts Underlying Language'. In Schiefelbusch, E. and L. Lloyd (eds) Language Perspectives : Acquisition, Retardation and Intervention. Baltimore University Park Press (1974) 129-151

SCHUMANN, J. (1976) 'Second Language Acquisition : the pidginization hypotheses'. LL 26:391-408

— (1978a) 'The Acquisition of English Negation by Speakers of Spanish : A Review of the Literature'. In Andersen (ed) (1978)

— (1978b) 'The Acculturation Model for Second Language Acquisition'. In Gingras (ed)

SCHUMANN, J. and N. Stenson (eds) (1974) New Frontiers in Second Language Learning. Newbury House, Rowley, Mass

SELIGER, H. (1979) 'On the Nature and Function of Language Rules in Language Teaching'. TESOL Q. 13

SELINKER, L. (1972) 'Interlanguage'. IRAL 10:209-231

SELINKER, L., M. Swain and G. Dumas (1975) 'The Interlanguage Hypothesis Extended to Children'. LL 25:139-153

SEN, S. (1959) 'The Position of the Negative Particle in Bengali'. Indian Linguistics 19:100-2

SHAPIRA, R. (1978) 'The Non-Learning of English : A Case Study of an Adult'. In Hatch (ed) (1978) 246-255

SHARMA, S.K. (1982) 'Negation in Hindi and Japanese : A Contrastive Study'. Unpublished M.Phil Dissertation, University of Delhi

SIEGEL, S. (1956) Nonparametric Statistics for Behavioural Sciences. McGraw Hill. Kogakusha Ltd

SIMUKOKO, Y.T. (1981) Some Aspects of the English of Bantu Speakers in Urban Primary Schools in Zambia. Unpublished Ph.D. Thesis, University of Edinburgh

SINGH, U.N. (1976) 'Negation in Bengali and the Order of Constituents'. Indian Linguistics 37:4:395-303

SINGH, K.S. (ed) (1978) Readings in Hindi-Urdu Linguistics. National Publishing House, New Delhi

SKINNER, B.F. (1957) Verbal Behaviour. Appleton Century Croft, New York

SLOBIN, D. (1970) 'Universals of Grammar Development in Children.' In Flores, G.E. d'arcais and W.J.M. Levelt (eds) Advances in Psycholinguistics (1970) 174-186. Amsterdam, North Holland

SLOBIN, D. (1971a) Psycholinguistics. Scott, Foresman and Co. Glenview, Illinois

-- (1971b) 'Developmental Psycholinguistics'. In Dingwall, W. (ed) A Survey of Linguistic Science. College Park, University of Maryland

— (1973) 'Cognitive Prerequisites for the Development of Grammar'. In Ferguson, C. and Slobin, D (eds) Studies in Child Language Development 175-208. Holt, Rinehart and Winston

SLOBIN, D. and C.A. Welsh (1973) 'Elicited Imitation as a Research Tool in Developmental Psycholinguistics'. In Ferguson and Slobin (eds) (1973) 485-497

SMITH, F. and C.A. Miller (eds) (1966) The Genesis of Language.= M.I.T. Press, Cambridge, Mass

SRIDHAR, S.N. (1981) 'Contrastive Analysis, Error Analysis, and Interlanguage : Three Phases of One Goal'. In Fisiak (ed) Contrastive Linguistics and the Language Teacher (1981). Pergamon Institute of English, Oxford

STENSON, N. (1974) 'Induced Errors'. In Schumann, J. and N. Stenson (eds) (1974) 54-70

STEVICK, E. (1976) Memory, Meaning, and Method. Rowley, Mass. Newbury House

SVARTVIK, E. (ed) (1973) Errata : Papers in Error Analysis. GWK Gleerup. Lund, Sweden

TAN WEN (1979) 'The Syntax of Negative Particles in Bengali'. Indian Linguistics 40:4:246-252

TARONE, E. (1977) 'Conscious Communication Strategies in Interlanguage'. A Progress Report. On TESOL '77

-- (1983) 'On the Variability of Interlanguage Systems'. Applied Linguistics 4:142-163

TARONE, A. Cohen and G. Dumas (1976) 'A Closer Look at some Interlanguage Terminology : A Framework for Communication Strategies'. WPB 9

TARONE, E., U. Frauenfelder and L. Selinker (1976) 'Systemacity/ Variability and Stability/Instability in Interlanguage Systems'. In Brown, H.D. (ed) Papers in Second Language Acquisition : Proceedings of the 6th Annual Conference on Applied Linguistics, University of Michigan (1976) 93-134

TAYLOR, B.P. (1975) 'The Use of Overgeneralization and Transfer as Learning Strategies by Elementary and Intermediate Students of ESL'. LL 25:73-88

TRAUGOTT, E. (1973) 'Some Thoughts on Natural Syntactic Processes'. In Bailey and Shuy (eds) (1973) 313-322

-- (1977) 'Natural Semantax : its Role in the Study of Second Language Acquisition'. In Corder and Roulet (eds) 132-162

TUCKER, G.R. (1977) 'Can a Second Language be Taught?' In Brown, Yario, Crymes (eds) (1977) 14-30

TURNER, D. (1978) 'The Effect of Instruction on Second Language Learning'. Paper presented at the 12th Annual TESOL Conference, Mexico City (1978)

ULTAN, R. (1978) 'Some General Characteristics of Interrogative Systems'. In Greenberg, J. (ed) (1978) 221-248

UPSHUR, J.A. (1968) 'Four Experiments on the Relation between Foreign Language Teaching and Learning'. LL 18:111-124

UPSHUR, J.A. and J. Phillips (1977) 'Pidginization, Creolization and the Elaboration of Learner Systems'. In Corder and Roulet (eds)

VON ELEK, T. and M. Okarsson (1972) 'An Experiment Assessing the Relative Effectiveness of Two Methods of Teaching English Grammatical Structures to Adults'. IRAL 10:60-72

WAGNER-GOUGH, J. (1975) 'Excerpts from Comparative Studies in Second Language Learning'. In Hatch (ed) (1978) 155-171

WATERSON, N. and C. Snow (eds) (1978) The Development of Communication. Wiley and Sons, Chichester

WEIHREICH, U. (1953) Languages in Contact : Findings and Problems. Moulton, The Hague

WILKINS, D.A. (1976) Notional Syllabuses. Oxford University Press

WODE, H. (1976) 'Developmental Sequences in Naturalistic L2 Acquisition'. WPB 11:1-31. Reprinted in Hatch (ed) (1978) 101-117

-- (1977) 'Four Early Stages in the Development of L1 Negation'. Journal of Child Language 4:87-102

-- (1978) 'The L1 vs. L2 Acquisition of English Interrogation'. WPB 15:37-57

-- (1979) 'Operating Principles and Universals in L1, L2 andFLT'. IRAL XVII/3:217-231

-- (1981) Learning a Second Language : An Integrated View of Language Acquisition.

WODE, H., J. Bahns, H. Bodey and W. Frank (1978) 'Developmental Sequence : An Alternative Approach to Morpheme Order'. LL 28:175-185

ZANVOORT, R.W. (1957) A Handbook of English Grammar. Longmans, Green and Co., London

Widdowson,H.G. (1978). Teaching Language as Communication. Oxford, Oxford University Press.